KV-E2911D
RM-689

SERVICE MANUAL

AEP Model
Chassis No. SCC-C96A-A

AE-1A CHASSIS

Note: The service manual for RM-689 have been issued separately.

MODELS OF THE SAME SERIES	
KV-E2911D	

SPECIFICATIONS

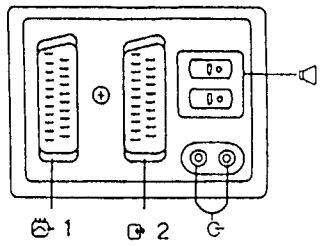
Television system	B/G/H
Color system	PAL, SECAM, NTSC 3.58, NTSC 4.43 (selected automatically)
Channel coverage	See »RECEIVABLE CHANNELS AND CHANNEL DISPLAYS«
Picture tube	Trinitron tube Approx. 72.4 cm (Approx. 68 cm picture measured diagonally) 110-degree deflection
Inputs	1 21-pin connector: CENELEC standard including RGB input. 2 21-pin connector: including S video input 3 4-pin DIN S video input connector A/V Input Y: 1 Vp – p ± 3 dB 75 ohm C: 0,3 Vp – p ± 3dB 75 ohms Audio input jacks: phono jack
Outputs	21-pin connector: CENELEC standard Headphones jack: stereo minijack External speaker terminals: 2-pin DIN Audio output jacks: phono jack (output dependent upon TV settings)
Sound output	30 W + 30 W (music power)
Power consumption	118 Wh
Dimensions not incl. speakers	Approx. 656 x 553.5 x 516.6 mm (w/h/d)
Dimensions incl. speakers	Approx. 837.6 x 553.5 x 516.6 mm
Weight not incl. speakers	Approx. 48 kg
Weight incl. speakers	Approx. 55 kg
Supplied accessories	RM-689 Remote Commander (1) IEC designation R 6 batteries (2) Detachable speakers (1 pair) Woofer (1)

Design and specifications are subject to change without notice.

MICROFILM

TRINITRON® COLOR TV
SONY®

21 Pin Connector (1 2)



Pin No	1	2	Signal	Signal level
1	○	○	Audio output B (right)	Standard level : 0.5Vrms Output impedance : Less than 1kohm*
2	○	○	Audio input B (right)	Standard level : 0.5Vrms Input impedance : More than 10kohms*
3	○	○	Audio output A (left)	Standard level : 0.5Vrms Output impedance : Less than 1kohm*
4	○	○	Ground (audio)	
5	○	○	Ground (blue)	
6	○	○	Audio input A (left)	Standard level : 0.5Vrms Input impedance : More than 10kohms*
7	○	●	Blue input	0.7V±3dB, 75ohms, positive
8	○	○	Function select (AV control)	High state (9.5–12 V) : Part mode Low state (0–2 V) : TV mode Input impedance : More than 10kohms Input capacitance : Less than 2 nF
9	○	○	Ground (green)	
10	○	○	Open	
11	○	●	Green	Green signal : 0.7V±3dB, 75ohms, positve
12	○	○	Open	
13	○	○	Ground (red)	
14	○	○	Ground (blanking)	
15	○	–	Red input	0.7V±3dB, 75ohms, positive
	–	○	(S signal) croma input	0.3V±3dB, 75ohms, positive
16	○	●	Blanking input (Ys signal)	High state (1–3 V) Low state (0–0.4 V) Input impedance : 75ohmes
17	○	○	Ground (video output)	
18	○	○	Ground (video Input)	
19	○	○	Video output	1V±3dB, 75ohms, positive Sync : 0.3V (–3, +10dB)
20	○	–	Video input	1 V±3dB, 75ohms, positive Sync : 0.3V (–3, +10dB)
	–	○	Video input/Y (S signal)	1 V±3dB, 75ohms, positive Sync : 0.3V (–3, +10dB)
21	○	○	Common ground (plug, shield)	

○ connected ● unconnected (open) * at 20 Hz–20 kHz

WARNING !!

AN ISOLATION TRANSFORMER SHOULD BE USED DURING ANY SERVICE TO AVOID POSSIBLE SHOCK HAZARD, BECAUSE OF LIVE CHASSIS.
THE CHASSIS OF THIS RECEIVER IS DIRECTLY CONNECTED TO THE AC POWER LINE.

SAFETY-RELATED COMPONENT WARNING !!

COMPONENTS IDENTIFIED BY SHADING AND MARK ⚠ ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

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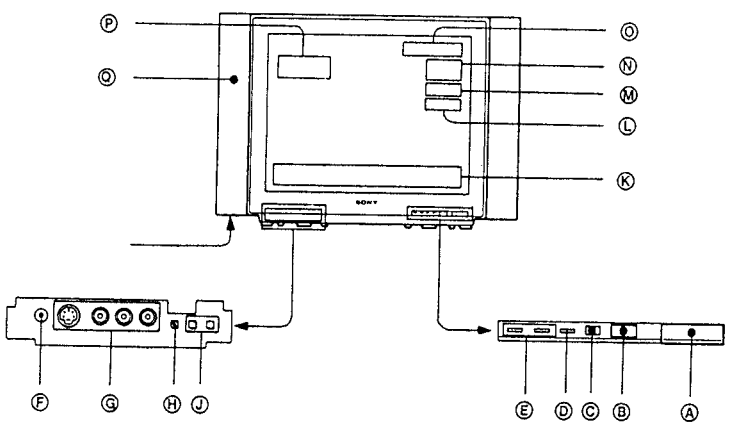
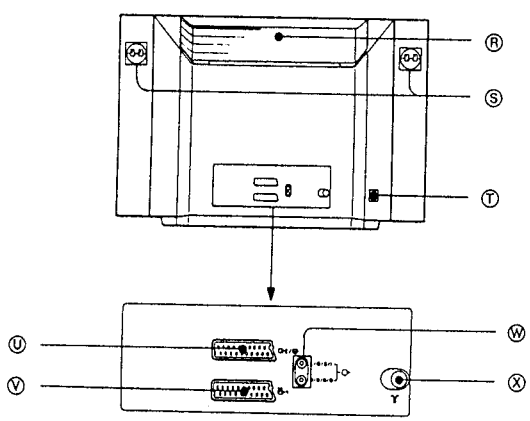
SECTION 1 GENERAL

1-1. FUNCTION OF CONTROLS





ON THE SET

Ⓐ Power Switch ⏻

Use it to switch the set on and off. When you switch the set on, the programme number of the station tuned in will be indicated in the on-screen display Ⓝ for some seconds. In case of short breaks of operation, you can switch the set on and off using the Remote Commander (See »CONTROLS ON THE REMOTE COMMANDER«).

Ⓑ Remote control detector

(See »CONTROLS ON THE REMOTE COMMANDER«).

Ⓒ ⏻ Standby/Response indicator

This indicator lights up when the TV set is in standby mode and it flashes each time the set receives signals from the Remote Commander.

Ⓓ Noise reduction indicator

This indicator lights up when noise reduction has been activated by pressing button 22 on the Remote Commander.

Ⓔ Stereo A/B indicators

During bilingual programmes one of the two indicators lights up, depending upon the selected channel **A** or **B**. When stereo programmes are broadcast both indicators light up. (See »CONTROLS ON THE REMOTE COMMANDER«).

Jacks and control panel

The jacks and the control panel are situated behind a cover. Please press the arrow marking on the cover to open it.

Ⓕ Headphones jack (stereo minijack)

Connect only stereo headphones.

Ⓖ Input jacks

(Y/C input) connector (4-pin) **3**
Video input jack (phono jack) **3** (yellow)
Audio input jacks (phono jacks) L/G/S/I and R/D/D/D (red and white).

Ⓗ Mode select button

Use this button to select either the programme tuning mode, volume adjustment or the input mode.

Ⓙ Adjustment buttons +/–

Select at first the item to be adjusted using the Mode select button Ⓗ **P** (programme tuning mode), (volume) or (input mode), then adjust the item by pressing the + or – button.
You can also use these buttons to reset the picture and sound adjustments to the factory-set levels. For this purpose press both buttons simultaneously.

On-screen display

When you press button 12 on the Remote Commander, the following information will be indicated on the screen:

Ⓚ Picture and sound adjustment items:

contrast, colour, brightness, hue (only for NTSC), sharpness, bass, treble or balance and the respective levels; as well as mute, reset, space sound and loudness indications, when the respective buttons are pressed.

When you press button 10 on the Remote Commander, the following information will be indicated on the screen:

Ⓛ TV-System: B/G

Ⓜ Channel number

Ⓝ Programme number or input mode;
1, , 2, 2, 3 or **3;**

Ⓞ Indication of the station name

Ⓟ AV output indication; 1, 2, 3 or **TV** (see »CONTROLS ON THE REMOTE COMMANDER«).

Ⓠ Speakers

See »HOW TO ATTACH THE SPEAKERS «.

Connectors on the rear

Ⓡ Woofer

Ⓢ Terminals for connecting the woofer

Ⓣ Terminals for the right and left speakers

Ⓤ Euro-AV-connector 21-pin /

For connecting a VTR, 8 mm video camera recorder, a video disc player or in general devices with an S-Video-output.

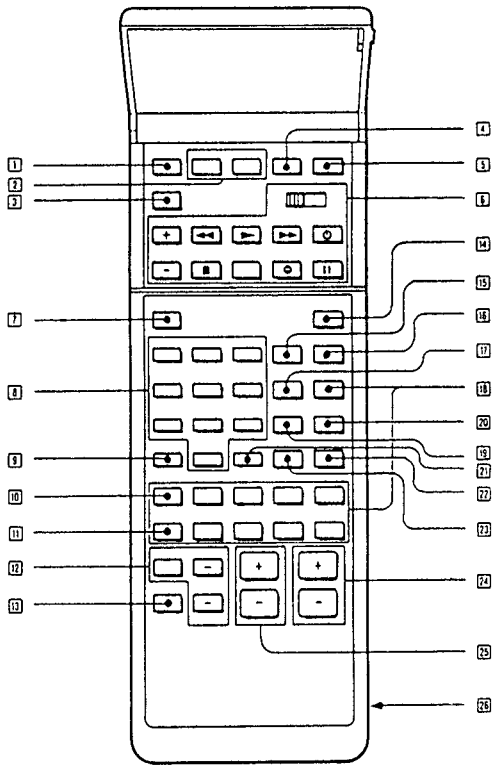
Ⓥ Euro-AV-connector 21-pin 1

For connecting a VTR, a video disc player, a computer ecc.,

Ⓦ Audio-output-jacks (phono jacks)

For connecting audio equipment, e.g. an amplifier, so that the sound will be output at the audio equipment. In this case the volume is adjustable on the TV set.

Ⓧ Aerial terminal



ON THE REMOTE COMMANDER

On the set there is a Remote Control detector Ⓑ, which receives the signals of the Remote Commander.

[1] **Preset-button** Used for selecting the Preset mode. See »TO PRESET CHANNELS«;

[2] **Tuning +/– butttons**
a) Preset mode: Used for tuning in stations in the Automatic Station Search: See »TO PRESET CHANNELS«;
b) TV-mode: Used for fine-tuning a station. See »ADDITIONAL FUNCTIONS«;

[3] **C button (Clear)**
Used for clearing programme positions, so that the position will be skipped when the PROGR +/– buttons [24] are pressed. See »TO PRESET CHANNELS«.

[4] ◇ **Store button:** Used for storing channels. See »TO PRESET CHANNELS«;

[5] **TV-system-select-button**
This button has no function;

[6] **Video selector and video operation buttons**
Used for operating Sony video equipment. For details see »CONNECTING OTHER EQUIPMENT«;

[7] **Mute button**
By pressing this button the sound of the set will be switched off and by pressing it once more the sound will restored.

[8] **Number buttons**
a) Used to select programme positions or to input channel numbers (in the preset mode).
b) If the set is in the standby mode, press one of the number buttons to switch it on.
c) After pressing the Output select button [17] the buttons 1-3 can be used to select the different Output connectors.

[9] **-/-- Button**
In case of two digit numbers, press first this button and then the two respective number buttons [8].

[10] **Button for On-screen display**
By pressing this button information about the station tuned-in will be indicated on the screen. The indications will disappear after some seconds with the exeption of the programme number, which will stay on the screen until the button is pressed once again.

[11] **Time button**
In TV-mode: If teletext service is broadcast on the selected channel, press this button to display the current time on the screen and once again to make it disappear.

[12] **+/– Buttons for picture and sound adjustments**
a) TV-mode:
The picture and sound adjustments are stored as standard values. You have, however, the possibility to change them to your individual liking. Press the button repeatedly until the required item is indicated in the on-screen display: contrast, colour, brightness, hue (only for NTSC colour system), sharpness, bass, treble or balance. You can adjust the settings by pressing the + or – button.
b) Preset-mode: Use these buttons to name a station. See »TO PRESET CHANNELS«;

[13] **Reset-button**
By pressing this button the picture and sound adjustments are reset to the factory-set levels.

[14] **Standby-button**
Press this button to switch the set into standby-mode. You can switch it on again by pressing the TV-button [16] or one of the number buttons [8]. To return to the teletext mode, press the [18] button. There will be a slight delay before the picture is restored.

Note

Use the Standby-button [14] only when switching the set off for a short period of time. If the set will not be used for a longer span of time, switch it off by using the Power switch Ⓐ.

[15] **Input-Select-Button**
Press this button to select the audio- or video-signals input at the various input connectors. With each pressing of the button a different connector is selected. The following indications will appear sequentially:

1 → (RGB) → 2 → 2 → 3 → 3

TV-mode

[16] **TV-Button**
When pressing this button the set returns from standby, video input- or teletext mode to the TV-mode.

[17] **Output-Select-Button**
Press this button to select the audio- or video signals to be output at the / connector. First press this button, then select the desired signal source using the number buttons [8] (either 1, 2 or 3) or the TV-button [16] (if the signals which are on the screen are to be output).

[18] **Teletext operation buttons**
These buttons are used for teletext operation. See »VIEWING TELETEXT«.

[19] **Loudness button**
By pressing this button the high and low tones will be emphasized. Press the button again to restore the normal sound. The indications on the screen will be or .

[20] **A/B button**
To select the channel of bilingual programmes. Usually the synchronized version is broadcast on channel **A** and the original sound is broadcast on channel **B**.
In the video input mode (Euro-AV-connectors) this possibility of selecting channels also exists.

[21] **C (Channel select) button**
Use this button for direct channel tuning in the TV-mode. See »ADDITIONAL FUNCTIONS«.

[22] **Noise reduction button**
Press to reduce the noise on the picture. The Noise reduction indicator Ⓓ lights up. Press the button again to restore the normal picture.

[23] **Space sound button**
Press this button to obtain special acoustic effects. Press it again to restore the normal sound. The indications on the screen will be or .

[24] **PROGR +/– buttons**
TV-mode: Use these buttons to scan the available programmes up- or downwards.
Preset mode: Use these buttons to scan the available channels up or downwards.

[25] **+/– buttons for adjusting the volume**

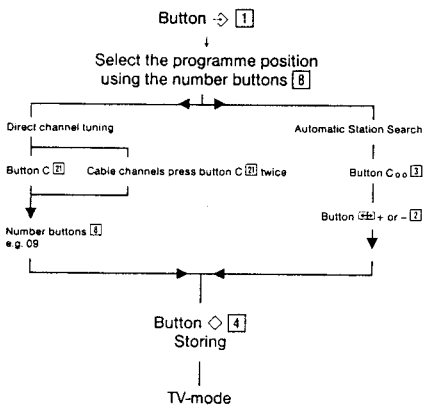
[26] **Battery compartment (on the rear)**

1-2. TO PRESET CHANNELS

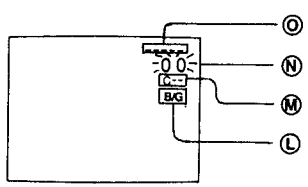
Use the buttons on the Remote Commander for presetting. In total there are 60 programme positions at your disposal for storing channels.
There are two different ways of tuning in channels:

1. Direct Channel Tuning
You know the channel number of a station and can input it directly.

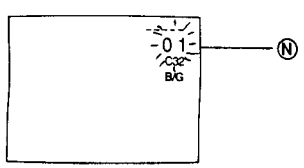
2. Automatic Station Search
The set searches automatically for stations (including cable channels).


Button ⇨ 1
Select the programme position using the number buttons 8
Direct channel tuning
Automatic Station Search
Button C 21
Cable channels press button C 21 twice
Button C∘∘ 3
Button ⊕ + or − 2
Number buttons 8 e.g. 09
Button ◇ 4 Storing
TV-mode

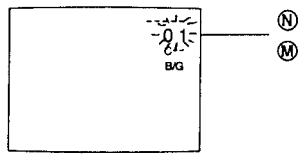
1. Direct Channel Tuning
1. Press the Preset button ⇨ 1. You are now in the preset mode of the set. The programme number in the on-screen display Ⓝ starts blinking.



2. With the buttons PROGR +/− 24 or the number buttons 8 you can select the programme position. In case of two-digit numbers, press first the button -/-- 9 and then the two number buttons.

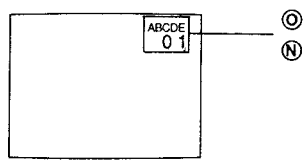


3. Press button C 21. The indication »C« and the channel number start blinking in the display Ⓜ. Select the channel number with two digits (e.g. 04) using the number buttons 8.



If you want to select a cable channel press button C 21 twice. In this case the indication »S« will appear in the display Ⓜ. Select the channel number as described above.

4. Press the button ◇ 4 in order to store the channel and to return to the TV-mode.



If you want to store further channels, repeat the steps 1 to 4.

2. Automatic Station Search

1. Press button ⇨ 1. You are now in the preset mode of the set. The programme number in the on-screen display Ⓝ starts blinking.

2. With the PROGR buttons +/− 24 or the number buttons 8 you can select the programme position. In case of two-digit numbers, press first button -/-- 9 and then the two number buttons.

3. If there is already a stored station on the selected programme position, press button C∘∘ 3.

4. Press one of the tuning buttons ⊕ +/− 2 to start the station search. The search will be interrupted as soon as a station is tuned in. Press the tuning buttons repeatedly until you find the desired station.

5. If you have found the desired station, press button ◇ 4. Now the selected station is stored and you are back in the TV-mode.

6. If you want to store further stations, repeat the steps 1-5.

Skipping of unused programme positions
Using button C∘∘ 3 you have the possibility to have unused programme positions (e.g. without a stored station) skipped, when pressing the buttons PROGR +/− 24 on the Remote Commander.

1. Press button ⇨ 1. You are now in the preset mode of the set.

2. Use the buttons PROGR +/− 24 to select the programme position, which you want to have skipped.

3. Press button C∘∘ 3.

4. Press button ◇ 4 to store the cleard programme position and to return to the TV-mode.

The skipped programme positions still appear when you press the number buttons 8 on the Remote commander.

If you want to name a station
After presetting the stations you have the possibility to name them. The selected name will appear in the on-screen display Ⓞ.

1. Press the preset button ⇨ 1.

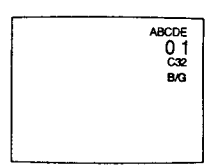
2. Press the button ⓜ 12. The first column of the station name starts blinking. Press either button + or − 12 and select the desired character (number or letter, 0-9, A-Z, - for a blank column).

3. Press button ⁽ᵐ⁾ 12 again. Now the second column starts blinking and you can select the second character.
In this way five characters can be selected.

4. Press button ◇ 4 to store the station name.

Notes

- If you press the preset button ⇨ 1 instead of button ◇ 4 the set will return to the TV-mode without storing the channels.
- If you press a wrong programme or a channel number, an »X« will be displayed on the screen.
- When pressing two number buttons, the second number button should be pressed within 5 seconds after the first one, otherwise the operation will be cancelled.

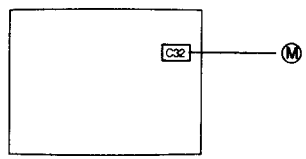


ADDITIONAL FUNCTIONS

Direct Channel Tuning in the TV-mode
You have the possibility to tune in channels directly when the set is in the TV-mode without storing these channels.
Example: You tune in channel number 32. If you switch the set off or change the programme position, this channel will be cancelled.

1. Press the button C 21. In the display Ⓜ the indication »C« will appear. For cable channels press the button C 21 twice. On the screen »S« will be displayed.

2. Select the channel number with two digits using the number buttons 8 (e.g. for channel 4 press first 0, then 4). The indication on the screen will disappear within some seconds.



Manual Fine Tuning
If the reception of a channel is not satisfactory, you have the possibility to disactivate the Automatic Fine Tuning, which is usually in operation during presetting in order to tune in the best possible picture.
Press one of the tuning buttons ⊕ +/− 2 to fine-tune a channel. The Automatic Fine Tuning will be restored when the respective programme position is pressed once again.

Auto shut off-Function
The TV set automatically goes into standby-mode some time after the transmission on a channel is finished.

1-3. VIEWING TELETEXT

To view the teletext service, use the Remote Commander.
The buttons for teletext operation are indicated in green.

Operation

1 Select the TV channel for the desired teletext service. When the signal is weak, teletext errors often occur.
2 Press (TEXT/MIX) to display the teletext service.
3 Key in the three digits of the desired page using the number buttons. If an error is made, complete the three-digit sequence by keying in any digit. Then, re-enter the correct page number.
The requested teletext page is displayed.

To return to the TV mode, press TV on the Remote Commander.

The teletext service can be displayed directly from the standby mode by pressing (TEXT/MIX).

To receive the teletext service of a different TV channel
1 Press TV to return to the TV mode.
2 Select the desired TV channel.
3 Press (TEXT/MIX).

Note

Buttons not referred to in the text do not operate.

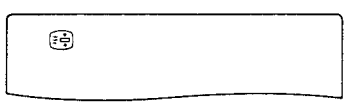
To request the index page
Press (INDEX).
If the necessary signal is not being broadcast, page 100 is displayed.

To access the next or preceding page
Press (PAGE +) or (PAGE –).

To superimpose the teletext display on the picture
Press (TEXT/MIX) twice from the TV mode.
Press (TEXT/MIX) again to return to the TEXT display.

To suppress the teletext display so that the TV picture is displayed
Press (TEXT CL).
This button can be operated from both the TEXT and MIX displays.

To prevent a teletext page from being updated/changed
Press (HOLD). The HOLD symbol appears on the screen.
To resume normal teletext reception, press (TEXT/MIX).

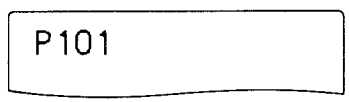


To resume normal teletext reception, press (TEXT/MIX).

To enlarge the teletext display
Press once to enlarge the upper half of the display; press again to enlarge the lower half of the display. And press again to return to the normal display.

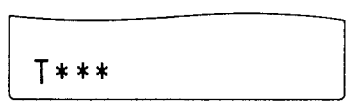
To reveal concealed information such as answers to a quiz
Press (REVEAL).
Press again to conceal the answers.

To watch the TV programme while waiting for a requested page to be displayed
1 Request the new page.
2 Press to watch the TV programme.
The requested page number and other data appear at the top of the screen. When the requested page has been captured, the page number is displayed in the top left hand corner of the screen.

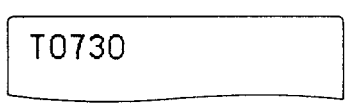


To view this page, press (TEXT/MIX).

To have a requested page displayed at a pre-determined time
1 Request a time coded page (e.g. alarm page).
2 Press (TP ON).
"T✱✱✱✱ " will appear at the bottom of the screen.



3 Enter your request time with the number buttons, using four digits. For example, 07 30.



To watch the TV programme until the requested time, press (TEXT CL). At the requested time, the page number will be displayed at the bottom of the screen.
To view this page, press (TEXT/MIX).
To cancel the request, first ensure that the teletext page is displayed, then press (TP OFF).

To view the input picture
Press the 15 button repeatedly until the desired input signal indication appears on the screen.

1: to view the audio and video signal input through the **1** connector on the rear.

1: to view the RGB signal (i.e. from a computer, etc.) input through the **1** connector.

2: to view the audio and video signal input through the **2/** connector on the rear.

2: to view the S video signal (from a VTR equipped with an S video output) input through the **2/** connector.

3: to view the audio and video signal input through the **3** connectors and the audio input jacks (yellow, white and red) on the front.

3: to view the S video signal input through the **3** connectors on the front (4-pin connector and white and red phone jacks).

You can also select the desired input mode using the buttons on the front of the set. Select the mode with the mode select (P → ⊿ →) button (F) then press +/– button.

To return to the TV mode, press the TV-button.

To select the signal to be output from the 2/ connector
Press the button 17, then 1, 2, 3 or the TV-button 16 while is displayed, so that one of the following indications is displayed:

1 : The audio and video signal input through the **1** connector is output from the **2/** connector.

2 : The audio and video signal input through the **2/** connector is output from the **2/** connector.

3 : The audio and video signal input through the **3** connectors is output from the **2/** connector.

TV **2**: The audio and video signal input through the aerial terminal (i.e. usually the TV signal) is output from the **2/** connector.

The indication will disappear after a few seconds.

Note

The TV-signal is always output at the EURO-AV connector **1**.

To operate a Sony video equipment
The video operation buttons 6 on the Remote Commander can operate the VTRs and video disc players manufactured by Sony.

1. Switch the video selector to the desired position.
VIDEO 1: to operate Sony Betamax VTR and SLV 202 VHS.
VIDEO 2: to operate Sony 8 mm VTR.
VIDEO 3: to operate Sony VHS VTR.
MDP: to operate Sony video disc player including a multi disc player.

2. Press the operation button(s) to start operation.
PROGR +/–: to select the desired programme on the VTR.

◀◀ : to rewind the tape or to rapidly go back to the desired position on the disc

▶ : to start playback

▶▶ : to advance the tape or the disc rapidly to the desired position

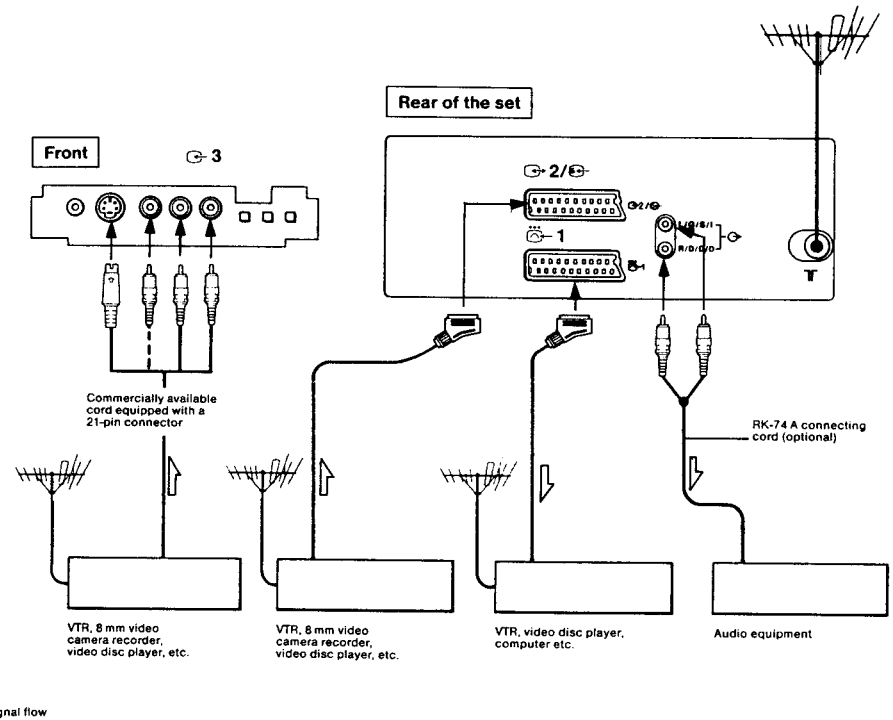
■ : to stop the tape or the disc, or to release the pause mode

● : to start recording on the VTR
Be sure to press this button and the one on the left simultaneously

⏻ : to switch the video equipment on and off

■■ : to stop the tape or the disc temporarily (pause)

1-4. CONECTING OTHER EQUIPMENT



* Connect the S video output of the VTR, etc. here.
** To connect S video connectors (4-pin DIN), use an optional YC-15/YC-15 EV connecting cable.

Notes

- It is also possible to connect a VTR using the 1r terminal. In this case, connect the aerial to the aerial terminal of the VTR.
- Move the VTR away from the TV if the picture or the sound is distorted.
- Computers which have RGB output only can be connected to the 1 input connector.

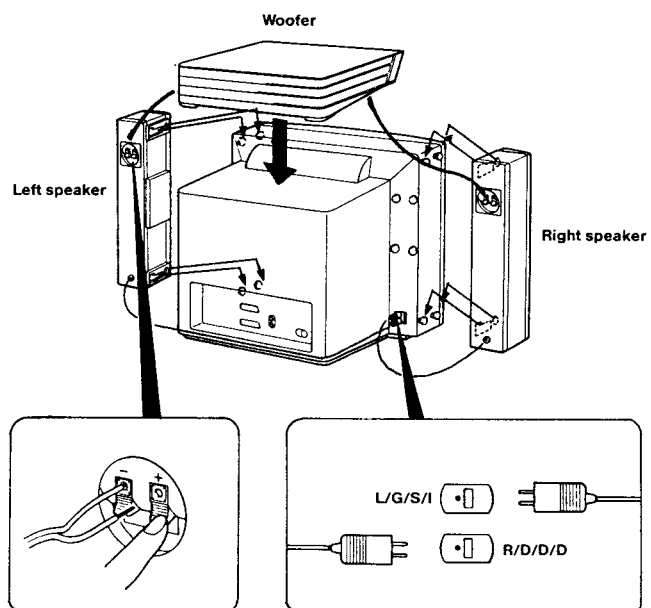
S video input (Y/C input)
Video signals may be separated into Y (luminance or brightness) and C (chrominance) signals.
Usually these two signals are combined in a VTR and output as one signal, and supplied to a TV. Separation of the Y and C signals prevent them from interfering with one another, thereby improving picture quality (especially in luminance).
This set is equipped with two S video input jacks through which these separated signals can be input directly.
Connect one of the two S video output jacks on the VTR to the S video input on this set.

1-5. HOW TO ATTACH THE SPEAKERS

	KV-E 2911 D
1	Place the woofer on the rear cover of the set.
2	Attach the right and left speakers on the sides of the set.
3	Connect the speaker cords of the woofer to the speaker terminals on the right and left speakers: connect the black cord to the – (black) terminal and the black and white cord to the + (red) terminal.
4	Connect the left speaker cord to the L/G/S/I terminal and the right speaker cord to the R/D/D/D terminal on the rear of the TV set.

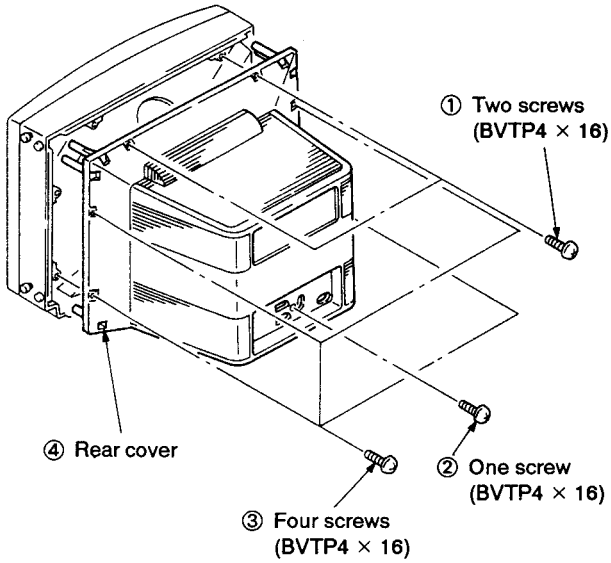
Note

Make sure that the set is turned off when you install the speakers.

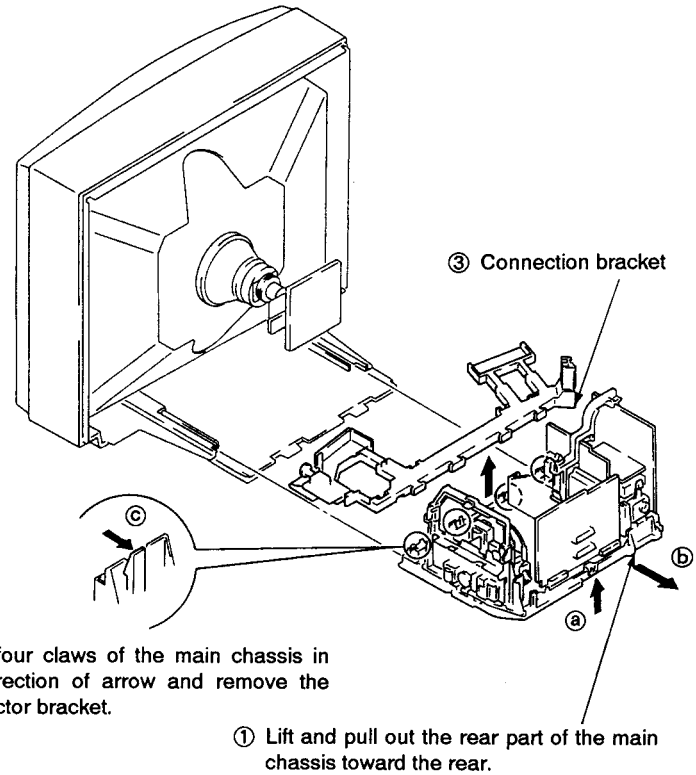


SECTION 2
DISASSEMBLY

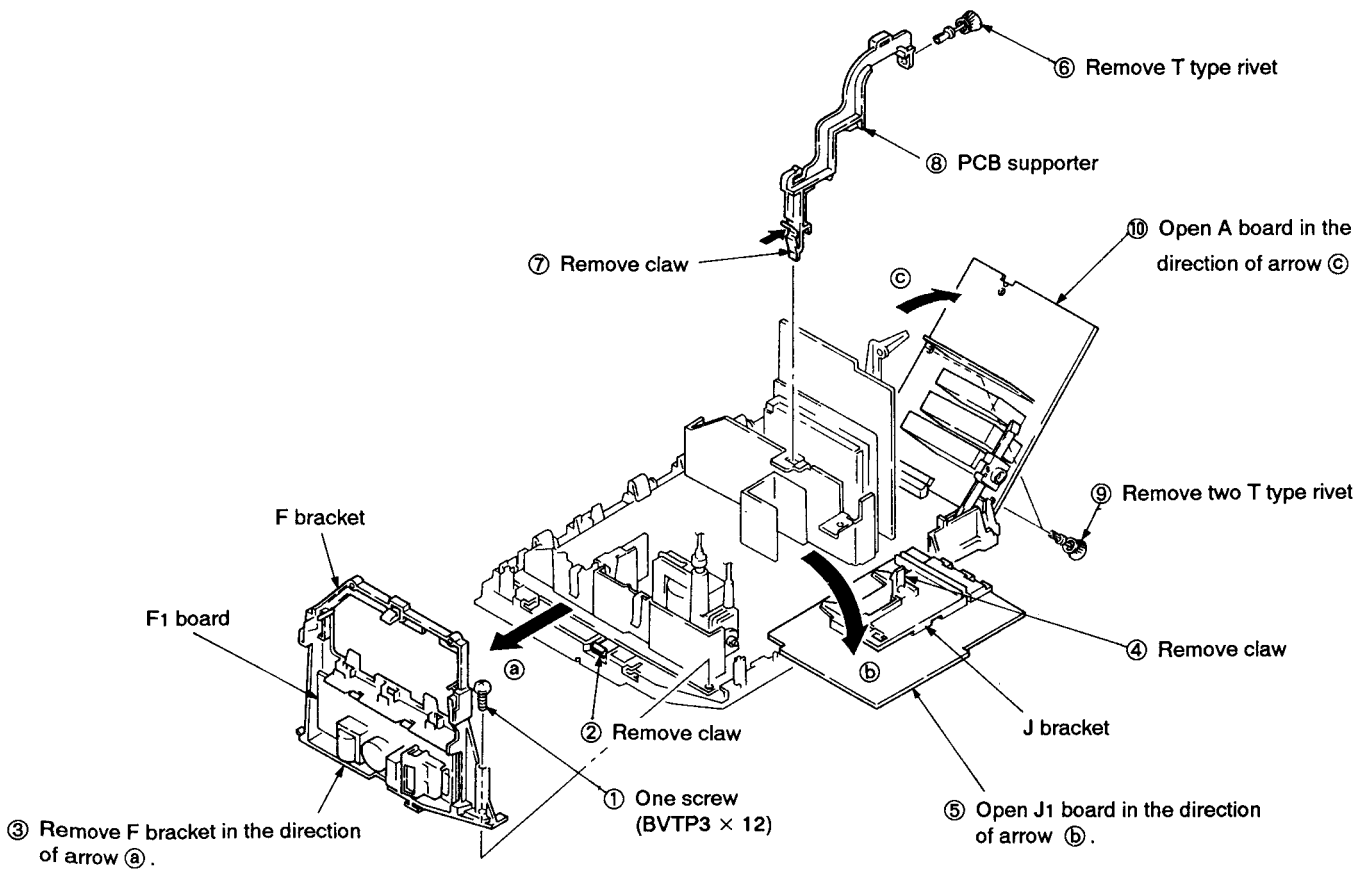
2-1. REAR COVER REMOVAL



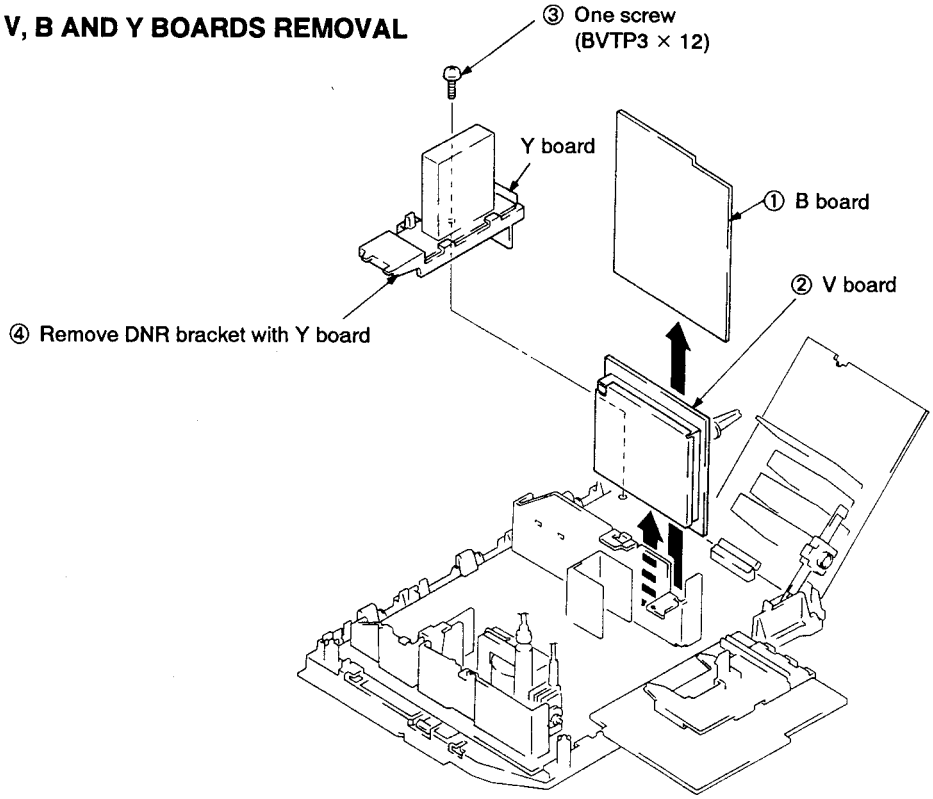
2-2. CHASSIS ASSY REMOVAL


③ Connection bracket
ⓒ
ⓑ
ⓐ
② Push four claws of the main chassis in the direction of arrow and remove the connector bracket.
① Lift and pull out the rear part of the main chassis toward the rear.

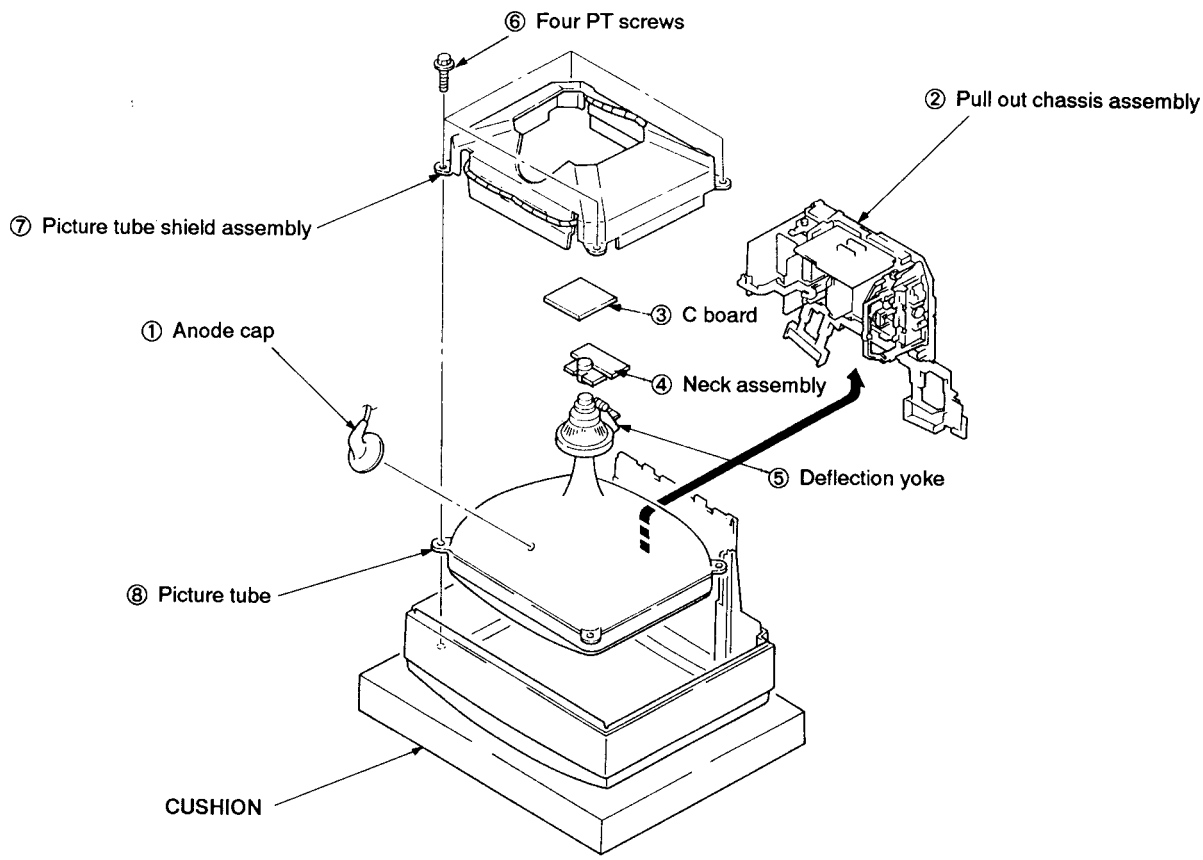
2-3. A, J1 BOARDS OPENING AND F1 BOARD REMOVAL


⑥ Remove T type rivet
⑧ PCB supporter
⑩ Open A board in the direction of arrow ⓒ
⑦ Remove claw
ⓒ
⑨ Remove two T type rivet
F bracket
F1 board
ⓐ
ⓑ
④ Remove claw
② Remove claw
J bracket
① One screw
(BVTP3 × 12)
⑤ Open J1 board in the direction of arrow ⓑ.
③ Remove F bracket in the direction of arrow ⓐ.

2-4. V, B AND Y BOARDS REMOVAL

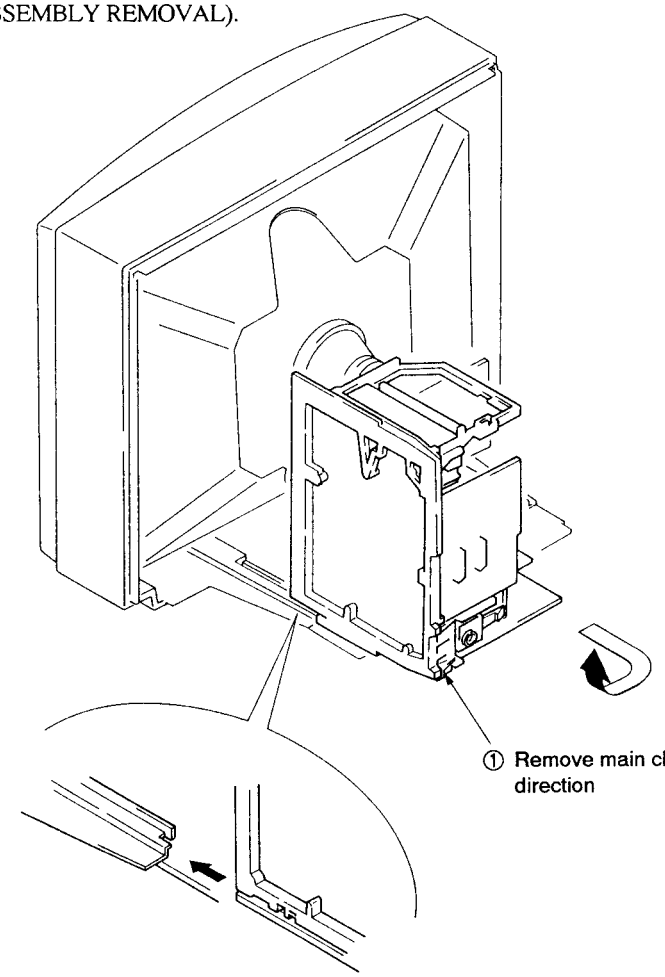


2-5. PICTURE TUBE REMOVAL



2-6. SERVICE POSITION

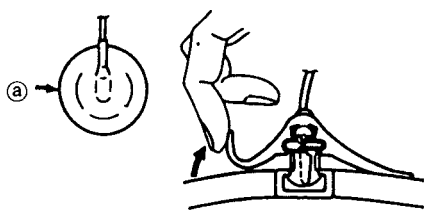
* Remove the connector bracket and then perform the following servicing (refer to 2-2. CHASSIS ASSEMBLY REMOVAL).



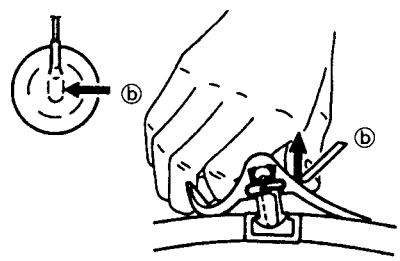
① Remove main chassis in the arrow direction

② Install the main chassis on to the holder

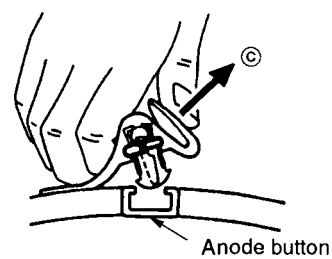
- **REMOVAL OF ANODE-CAP**
- **REMOVING PROCEDURES**



① Turn up one side of the rubber cap in the direction indicated by the arrow ⓐ.



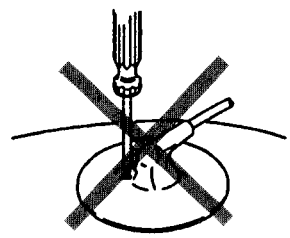
② Using a thumb pull up the rubber cap firmly in the direction indicated by the arrow ⓑ.

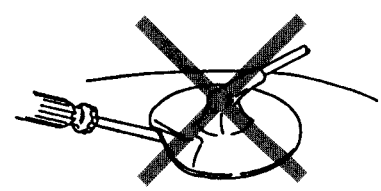


③ When one side of the rubber cap is separated from the anode button, the anode-cap can be removed by turning up the rubber cap and pulling up it in the direction of the arrow ⓒ.

- **HOW TO HANDLE AN ANODE-CAP**

① Don't hurt the surface of anode-caps with sharp shaped material !
② Don't press the rubber hardly not to hurt inside of anode-caps !
A metal fitting called as shatter-hook terminal is built in the rubber.
③ Don't turn the foot of rubber over hardly !
The shatter-hook terminal will stick out or hurt the rubber.





SECTION 3
SET-UP ADJUSTMENTS

- When complete readjustment is necessary or a new receiver tube is installed, carry out the following adjustments.
- Unless there is specific instruction to the contrary, carry out these adjustments with the rated power supply.
  Unless there is specific instruction to the contrary, set the controls and switches this way :
  ◑ Contrast 80%
  (or remote control normal)
  ☼ Brightness 50%

Carry out the following adjustments in this order :
1. Beam landing
2. Convergence
3. Focus
4. White balance

Note : Testing equipment required
1. Color bar/pattern generator
2. Degausser
3. DC power supply
4. Digital multimeter
5. Oscilloscope

Preparations
- In order to reduce the influence of geomagnetism on the set's PICTURE TUBE face it east or west.
- Switch on the set's power and degauss with the degausser.

3-1. BEAM LANDING

1. Input the raster signal with the pattern generator.
   Contras
   Brightness normale
2. Set the pattern generator raster signal to red.
3. Move the deflection yoke to the rear and adjust with the purity control so that the red is at the center and the blue and the green take up equally sized areas on each side. (See Figures 3-1 through 3-3)
4. Move the deflection yoke forward and adjust so that entire screen is red. (See Figure 3-1)
5. Switch the raster signal to blue, then to green and verify the condition.
6. When the position of the deflection yoke has been decided, fasten the deflection yoke with the screws.
7. If the beam does not land correctly in all the corners, use a magnet to adjust it. (See Figure 3-4)

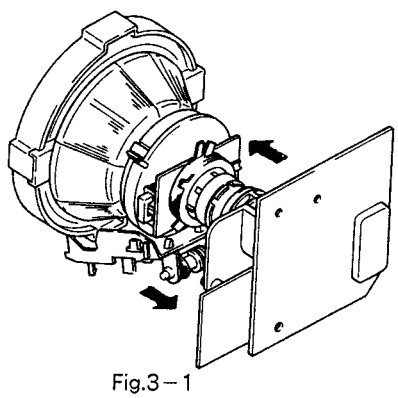
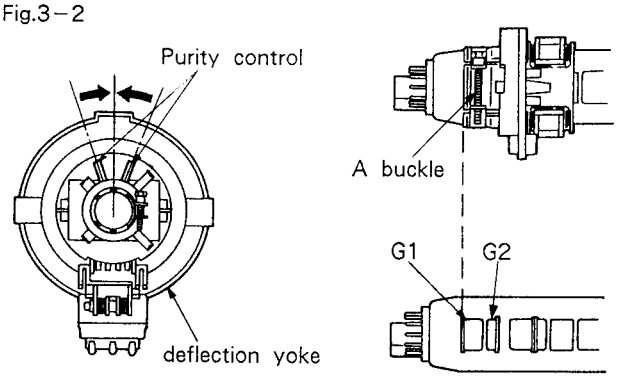


Fig.3-1

Fig.3-2



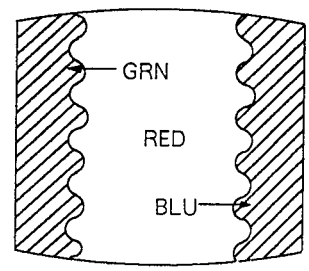


Fig.3-3

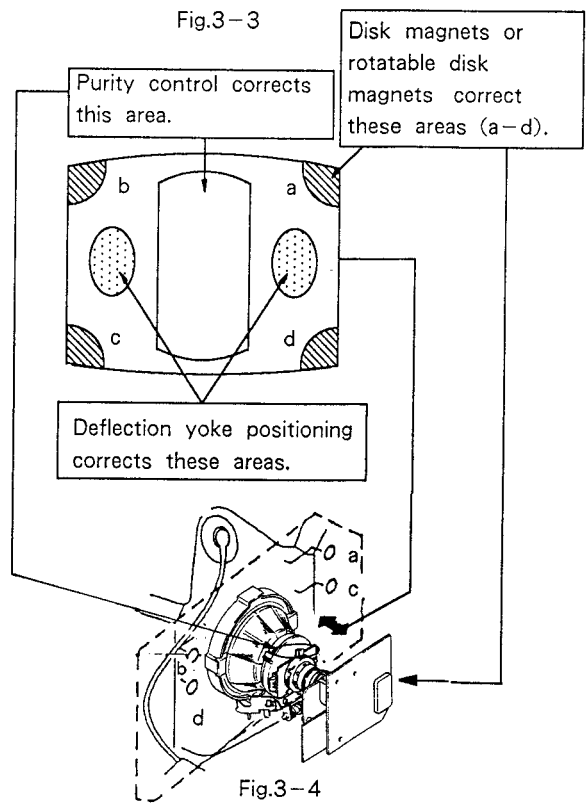


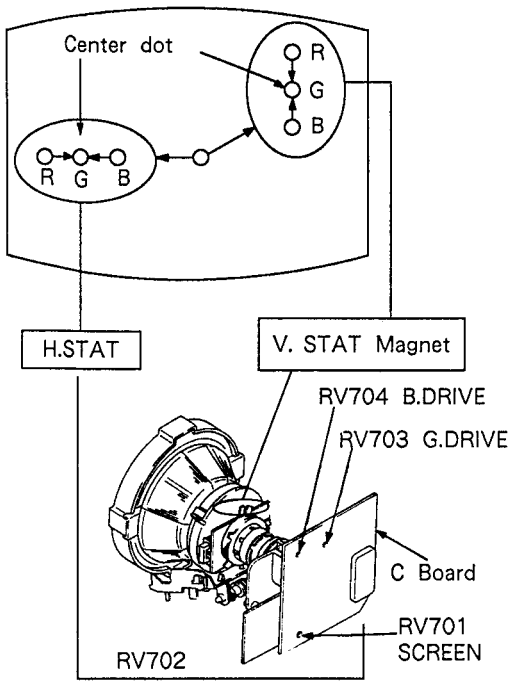
Fig.3-4

3-2. CONVERGENCE

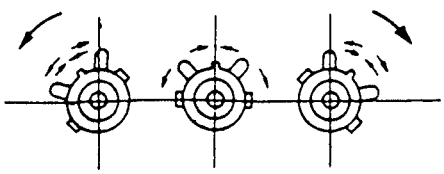
Preparations :

- Before starting this adjustment, adjust the focus, horizontal size, and vertical size.
- Minimize the brightness setting.
- Provide a dot pattern.

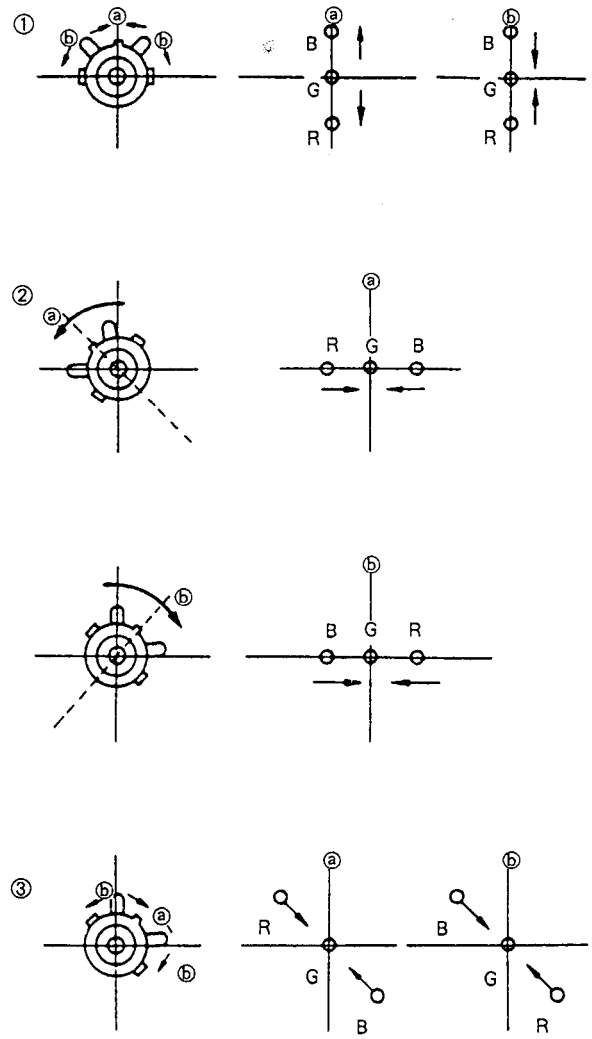
(1) Horizontal and vertical static convergence



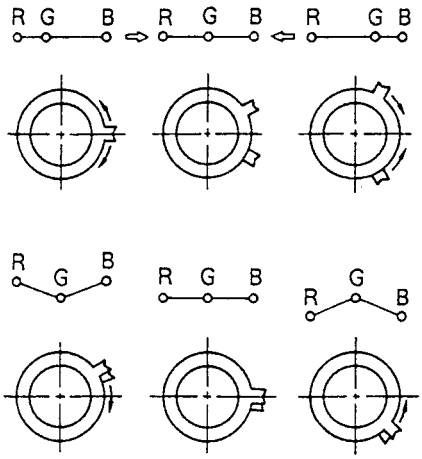
1. (Moving horizontally), adjust the H.STAT control so that the red, green, and blue points are on top of each other at the center of the screen.
2. (Moving vertically), adjust the V.STAT magnet so that the red, green, and blue points are on top of each other at the center of the screen.
3. If the H.STAT variable resistor can not bring the red, green, and blue points together at the center of the screen, adjust the horizontal convergence with the H.STAT variable resistor and the V.STAT magnet in the manner given below.
   (In this case, the H.STAT variable resistor and the V.STAT magnet influence each other's settings.)
   - Tilt the V.STAT magnet and adjust the static convergence by opening or closing the V.STAT magnet.

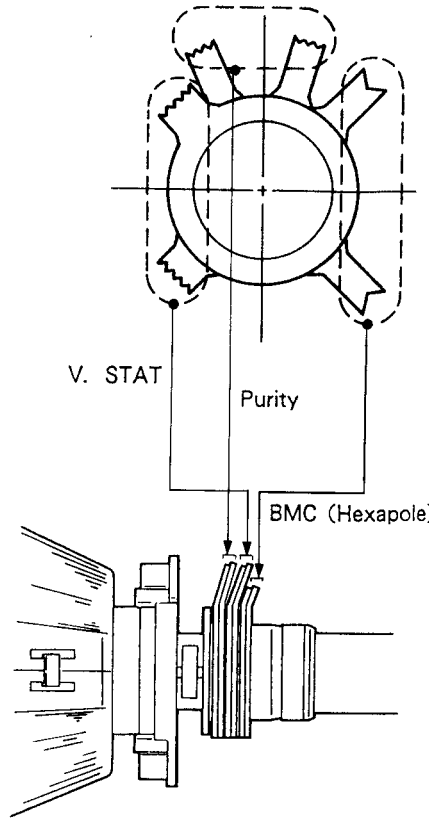


4. If the V.STAT magnet is moved in the direction of the ⓐ and ⓑ arrows, the red, green, and blue points move as shown below.



● Operation of BMC (Hexapole) Magnet





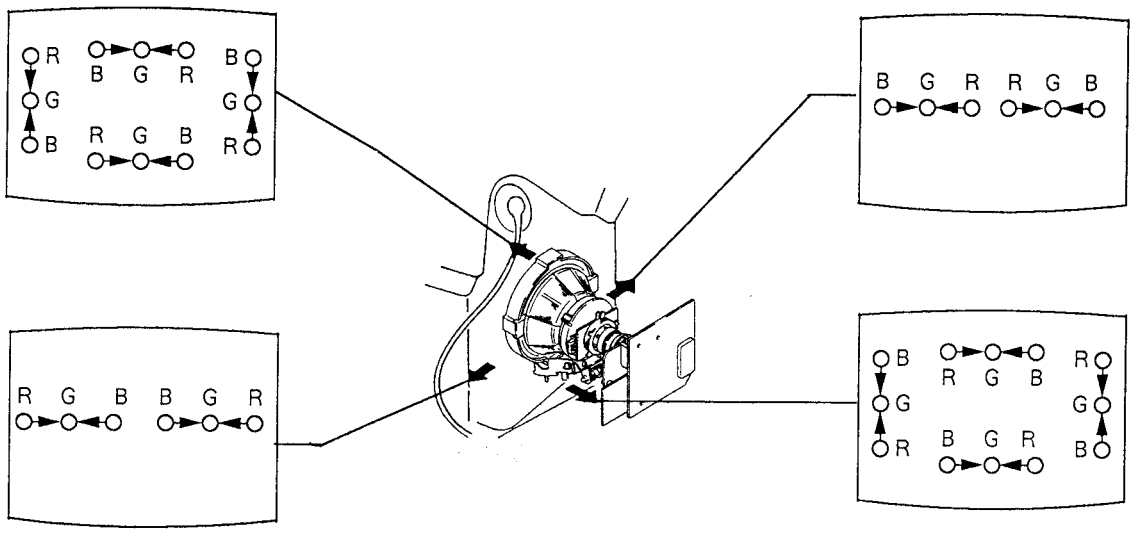
● The respective dot operations resulting from the operation of each magnet are not completely independent, so be sure to perform adjustment while tracking.
Use the H. STAT VR to adjust the red, green, and blue dots so they coincide at the center of screen (by moving the dots in the horizontal direction).

(2) Dynamic convergence adjustment

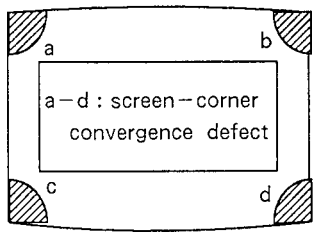
Preparations

● Before starting this adjustment, adjust the horizontal static convergence and the vertical static convergence.

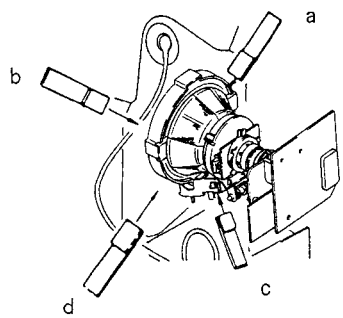
1. Slightly loosen the deflection yoke screws.
2. Remove the deflection yoke spacer.
3. Move the deflection yoke as shown in the figure below and optimize the convergence.
4. Tighten the deflection yoke screws.
5. Install the deflection yoke spacer.



(3) Screen corner convergence



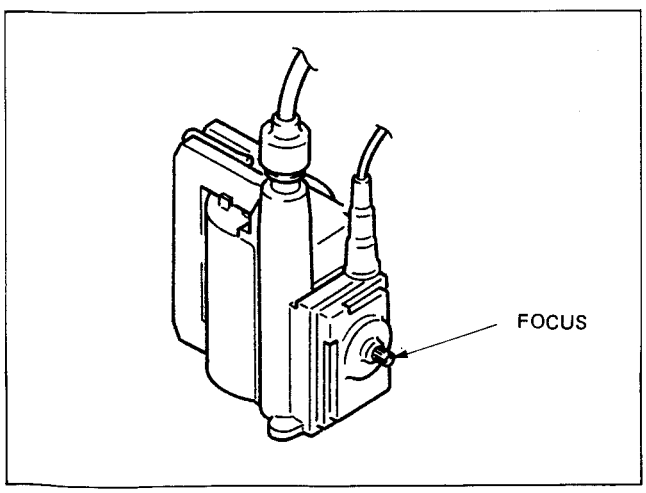
Install the permalloy assembly for the section with faulty.



Permalloy

3–3. FOCUS

Adjust the focus to optimize the screen.



3–4. WHITE BALANCE

[Screen G2 setting]

1. Input the dot signal from the pattern generator.
2. Set the picture brightness control to its lowest level.
3. Apply 170 VDC to the R, G, and B cathodes with an external power supply.
4. While watching the picture, adjust G2 control RV701 (Screen) to the point just before the return lines disappear.

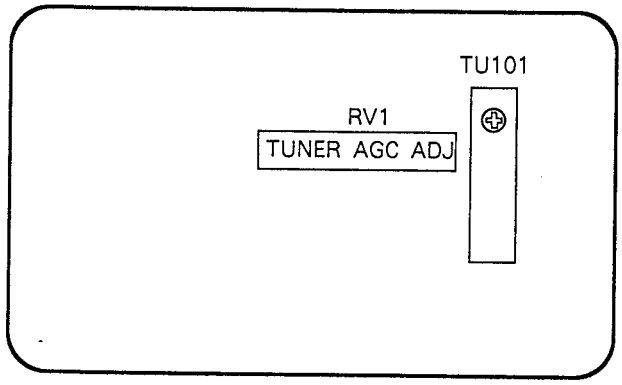
[White balance adjustment]

1. Input an all–white signal from the pattern generator.
2. Set the picture brightness and color controls to their normal levels.
3. Use RV704 (B Drive) and RV703 (G Drive) to adjust the white balance.

In the adjustments below, have the picture color and brightness settings at their normal levels unless there is a specific instruction to the contrary.

SECTION 4
CIRCUIT ADJUSTMENTS

4-1. A BOARD ADJUSTMENTS

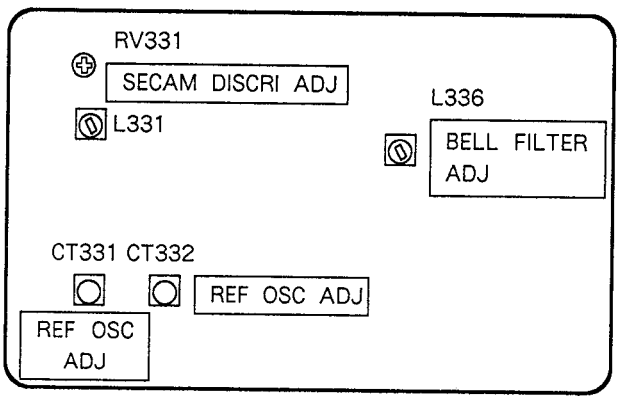


(COMPONENT SIDE)

TUNER AGC ADJUSTMENT (VIF101 RV1)

1. Align with an appropriate signal between stations.
2. Adjust RV1 so that snow noise and cross modulation just disappear from the picture.

4-2. B BOARD ADJUSTMENT



(COMPONENT SIDE)

REFERENCE OSCILLATOR ADJUSTMENT (CT332 8.8 MHz)

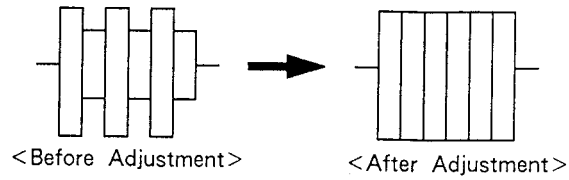
1. Input a PAL color bar signal.
2. Ground Pin ⑰ of IC331.
3. Adjust CT331 to obtain synchronization.

REFERENCE OSCILLATOR ADJUSTMENT (CT331 7.16 MHz)

1. Input an NTSC color ber signal.
2. Ground Pin ⑰ of IC331.
3. Adjust CT332 to obtain synchronization.
4. Remove the justper grounding Pin ⑰ of IC331.

BELL FILTER ADJUSTMRNT (L336)

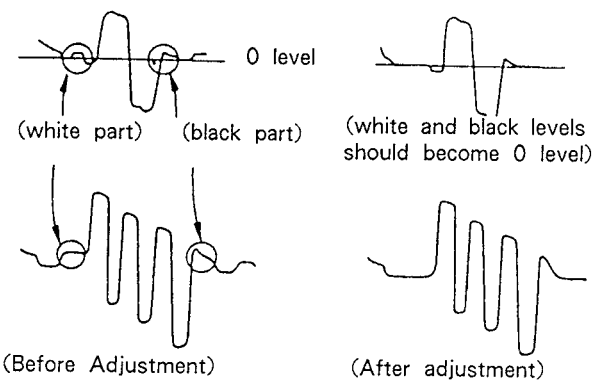
1. Input a SECAM color bar signal.
2. Connect the oscilloscope to the emitter of Q335.
3. Adjust L336 so that the waveform is flat.



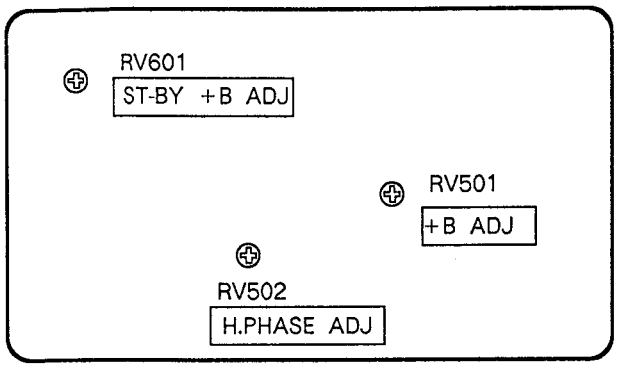
<Before Adjustment> <After Adjustment>

DISCRIMINATION ADJUSTMENT (RV331 and L331)

1. Input a SECAM color bar signal.
2. Connect the oscilloscope to Pin ① of IC331.
3. Adjust RV331 so that the white and black sections of the wave form at Pin ① come to the 0 level.
4. Connect the oscilloscope to Pin ③ of IC331.
5. Adjust L331 so that the white and black sections of the wave form at Pin ③ come to the 0 level.



4-3. D BOARD ADJUSTMENTS



+B ADJUSTMENT (RV501)

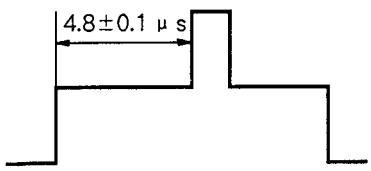
1. Connect the digital multimeter to TP91.
2. Adjust RV501 to obtain 135±0.2V.

ST-BY +B ADJUSTMENT (RV601)

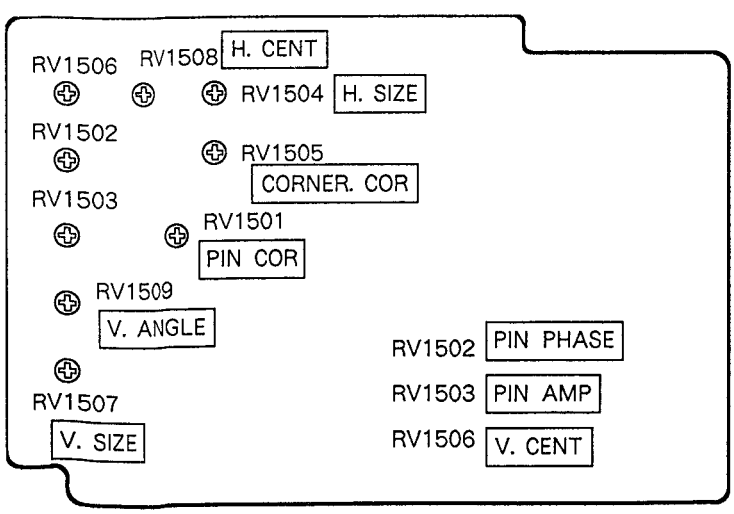
1. Put the system into ⏻ standby mode (remote commander).
2. Connect the digital multimeter to TP91.
3. Adjust RV601 to obtain 135±0.2V.
4. Take the system out of ⏻ standby mode (remote commander).

H.PHASE ADJUSTMENT (RV502)

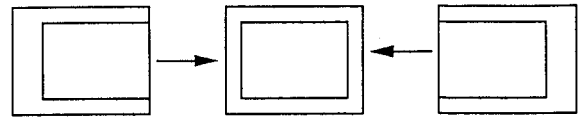
1. Input a PAL color bar signal.
2. Set the picture and brightness controls to their normal levels.
3. Set RV1508 (H. CENT) to its mechanical canter.
4. Connect the oscilloscope to pin ⑪ (SCP) of IC501.
5. Rotate RV502 to adjust to 4.8±0.1 μs.



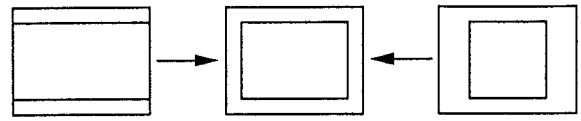
4-4. J1 BOARD ADJUSTMENTS



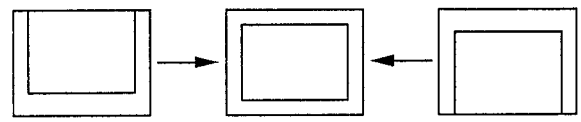
RV1508
H. CENT (HORIZONTAL CENTER)



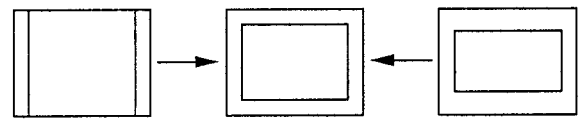
RV1504
H. SIZE (HORIZONTAL SIZE)



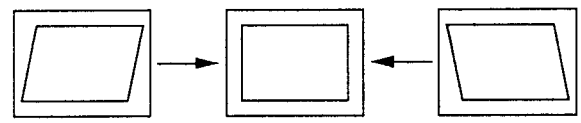
RV1506
V. CENT (VERTICAL CENTER)



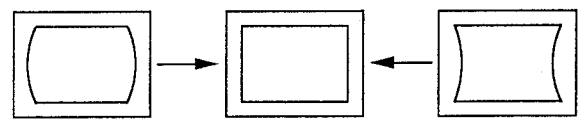
RV1507
V. SIZE (VERTICAL SIZE)



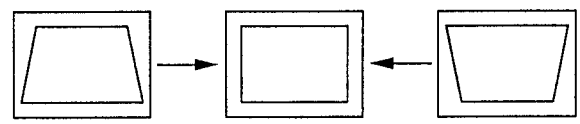
RV1509
V. ANGLE (VERTICAL ANGLE)



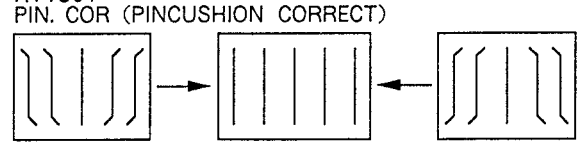
RV1503
PIN AMP (PINCUSHION AMPLIFIER)



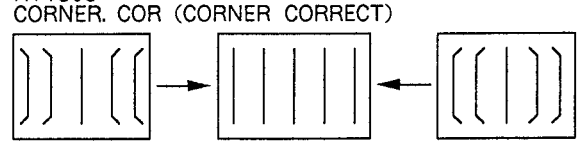
RV1502
PIN PHASE (PINCUSHION PHASE)



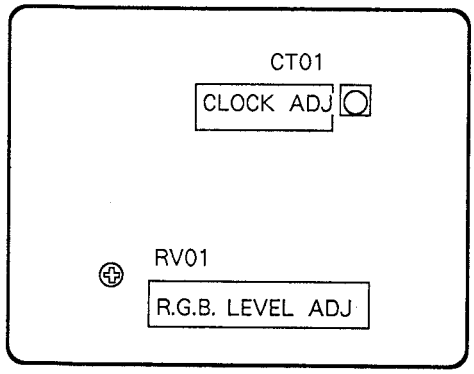
RV1501
PIN. COR (PINCUSHION CORRECT)



RV1505
CORNER. COR (CORNER CORRECT)



4-5. V BOARD ADJUSTMENT



1. Remove the V-1 connector.
2. Put the system into Text mode.
3. Adjust CT01 so that the picture does not move.

RGB LEVEL ADJUSTMENT (RV01)

1. Maximize the picture setting.
2. Adjust RV01 so that the RGB output is 0.75V.

4-6. SECONDARY ADJUSTMENTS

SUB BRIGHTNESS ADJUSTMENT

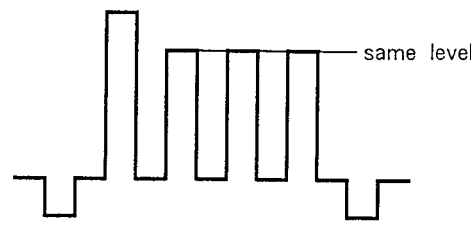
1. Set the system to receive a test color pattern.
2. Press →•← on the remote commander to put the system into normal mode.
3. Switch off the power.
4. While depressing the adjusting buttons + and − simultaneusly, turn on the power. (SUB mode is obtained)
5. Minimize the ◑ contrast setting.
6. Adjust the ☼ brightness control so that the qray scale O IRE section is cut off completely and the 20 IRE section is barely qlowing.
7. Depress the ◇ (store) button of the remote commander. (SUB mode is released)

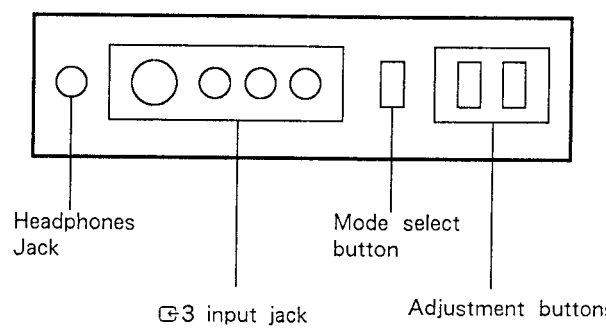
If there is no test color pattern

1. Set the system to receive a color pattern.
2. Press on the remote commander to put system into normal made.
   Set the ◑ color to its normal state.
3. −5.are the same as above.
6. Since 20 IRE is nearly blue, adjust the ☼ brightness control so that the blue barely qlows.
7. is the same as adove.
8. Press →•← on the remote commander to put the system into normal mode.

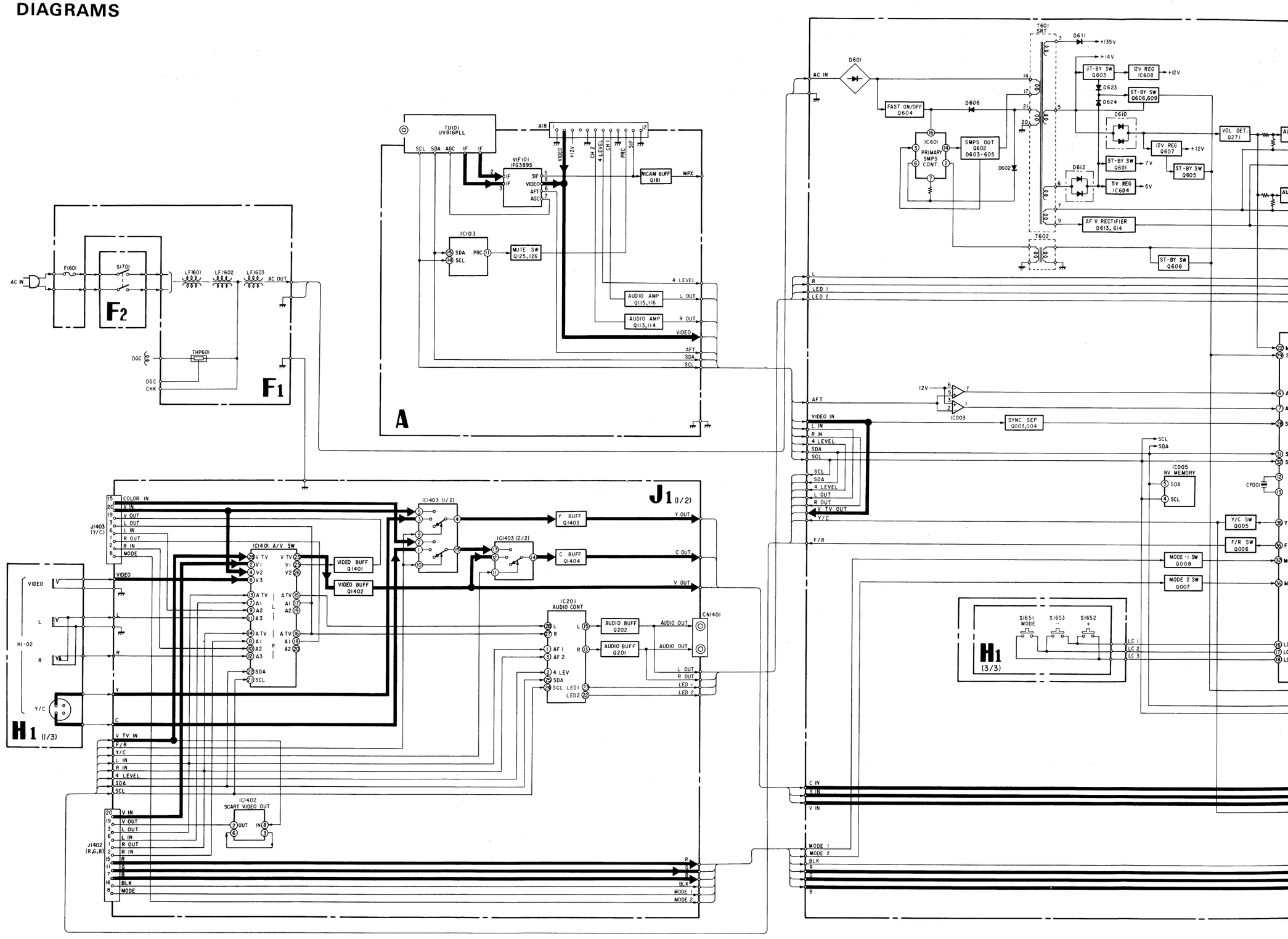
SUB COLOR ADJUSTMENT

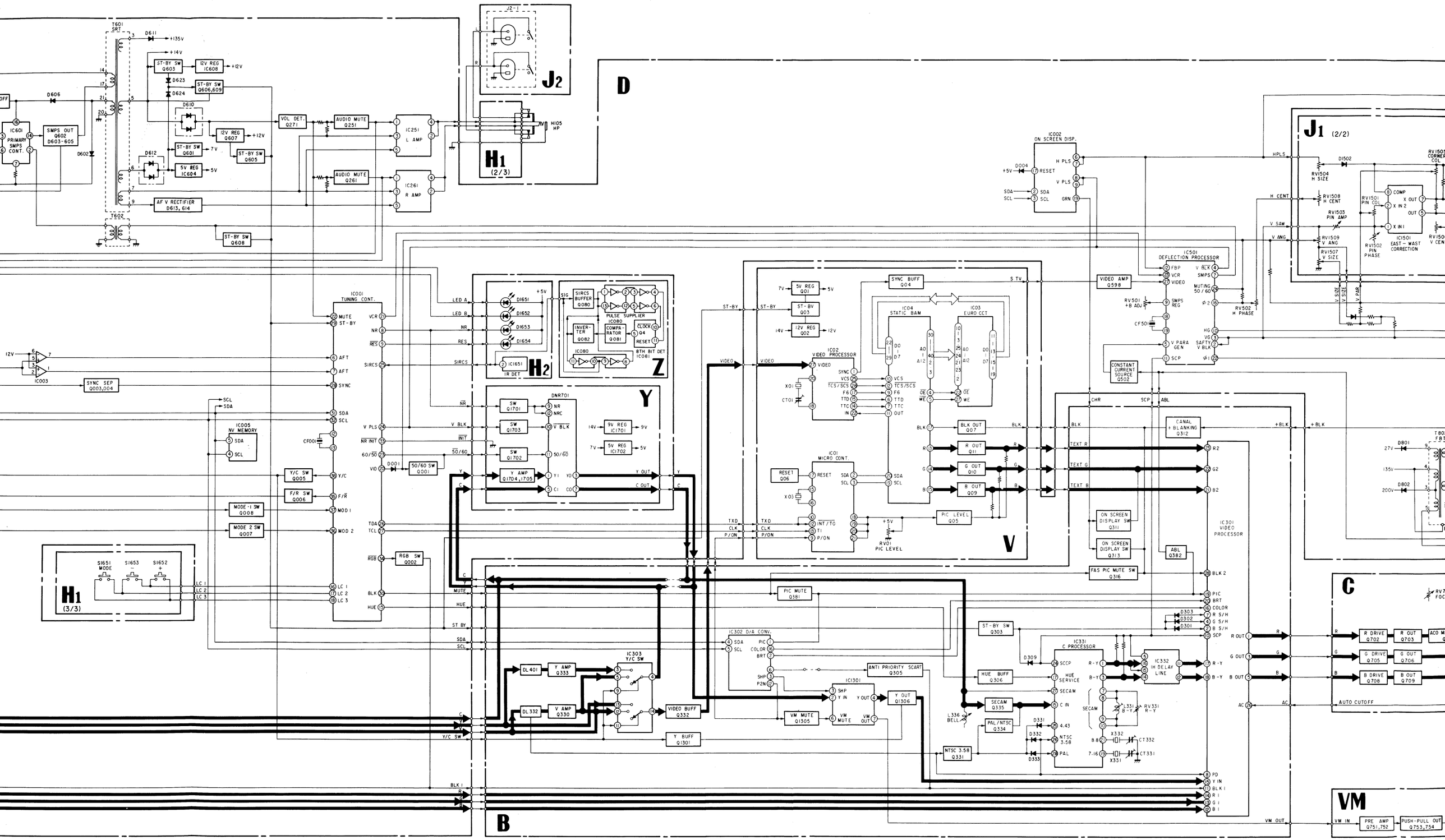
1. Set the system to receive color bars.
2. Press →•← on the remote commander to put the system into normal mode.
3. Cut off the power.
4. While depressing the adjusting buttons + and − simultaneusly, turn on the power. (SUB mode is obtained)
5. Adjust the color control so that the B out wave form (Pin ② of C board connector CNC72) is as shown in the figure below.
6. Depress the ◇ (store) button of the remote commander. (SUB mode is released)



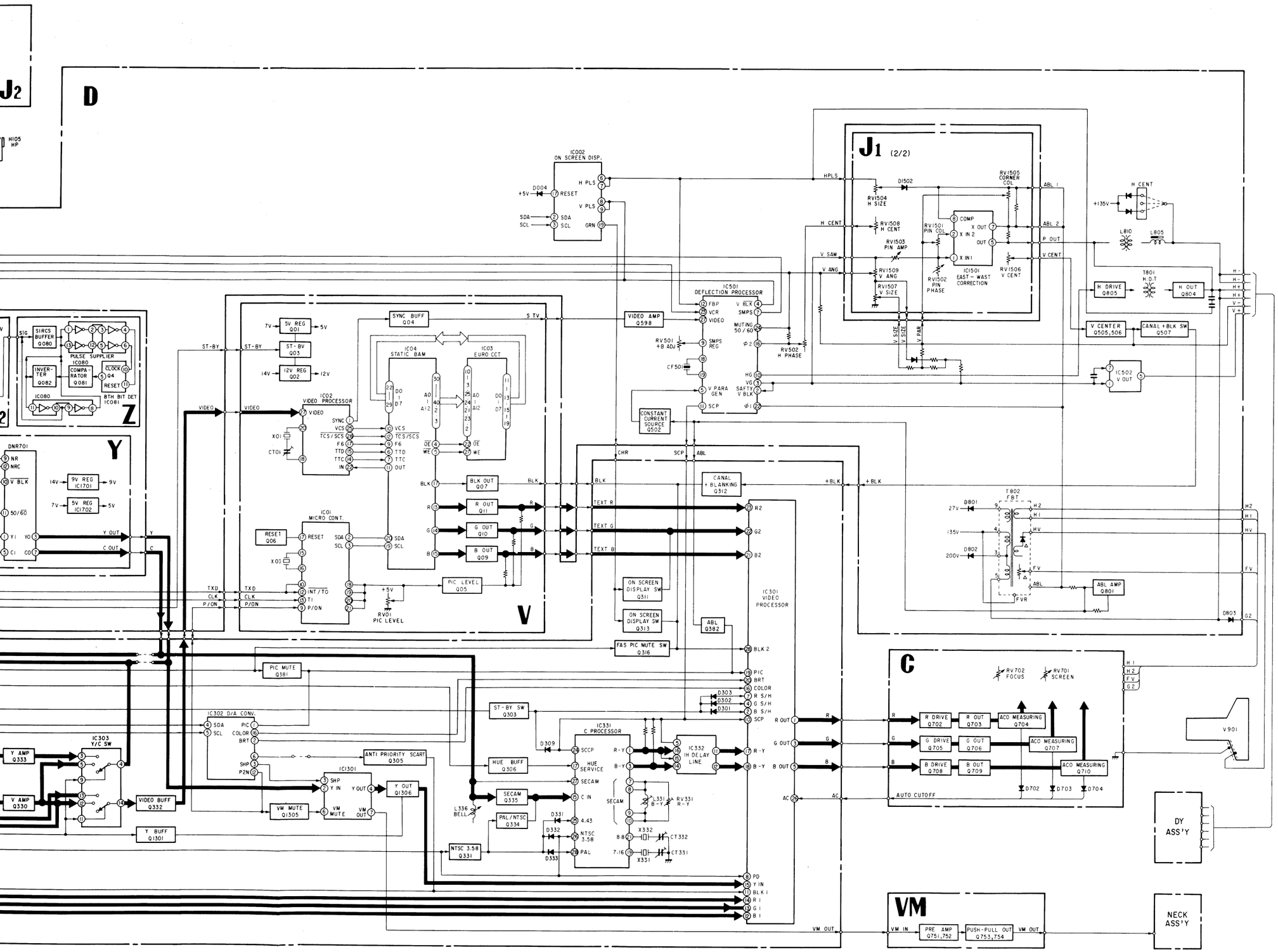


SECTION 5
DIAGRAMS

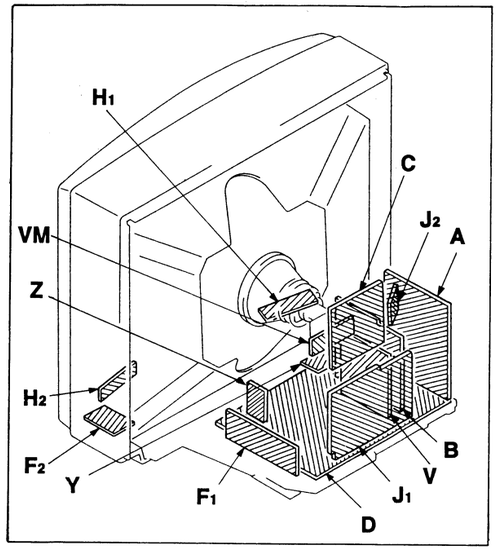



D
J2
H1 (2/3)
J1 (2/2)
H2
Z
Y
V
C
B
VM
H1 (3/3)
T601 SRT
T602
D611
+135V
+14V
ST-BY SW Q603
12V REG IC608
+12V
ST-BY SW Q606,609
D623
D624
D606
D610
SMPS OUT Q602 D603-605
IC601 PRIMARY SMPS CONT.
D602
12V REG Q607
ST-BY SW Q601
7V
ST-BY SW Q605
D612
5V REG IC604
5V
VOL DET. Q271
AUDIO MUTE Q251
AUDIO MUTE Q261
IC251 L AMP
IC261 R AMP
HI05 HP
AF V RECTIFIER D613, 614
ST-BY SW Q608
J2-1
IC002 ON SCREEN DISP.
D004
RESET
SDA
SCL
H PLS
V PLS
GRN
HPLS
D1502
RV1504 H SIZE
RV1508 H CENT
RV1503 PIN AMP
RV1509 V ANG
RV1507 V SIZE
RV1501 PIN COL
RV1502 PIN PHASE
IC1501 EAST-WAST CORRECTION
COMP
X OUT
X IN 2
X IN 1
H CENT
V SAW
V ANG
V SIZE
V PAR
IC501 DEFLECTION PROCESSOR
FBP
VCR
VIDEO
SMPS REG
MUTING 50/60
V PARA GEN
SCP
V BLK
SMPS
HG
VG
SAFTY V BLK
VIDEO AMP Q598
RV501 +B ADJ
CF501
RV502 H PHASE
CONSTANT CURRENT SOURCE Q502
IC001 TUNING CONT.
MUTE
ST-BY
AFT
SYNC
SDA
SCL
VCR
NR
RES
SIRCS
V PLS
NR INIT
60/50
VID
50/60 SW Q001
CF001
IC003
SYNC SEP Q003,004
IC005 NV MEMORY
Y/C SW Q005
F/R SW Q006
MODE 1 SW Q008
MODE 2 SW Q007
RGB SW Q002
S1651 MODE
S1653 –
S1652 +
LED A
LED B
D1651
D1652
D1653
D1654
IR DET
IC1651
SIRCS BUFFER Q080
PULSE SUPPLIER IC080
INVERTER Q082
COMPARATOR Q081
CLOCK Q4
RESET
8TH BIT DET IC081
SW Q1701
SW Q1703
SW Q1702
Y AMP Q1704,1705
DNR701
NR
NRC
V BLK
50/60
9V REG IC1701
5V REG IC1702
9V
5V
Y OUT
C OUT
IC1 MICRO CONT.
RESET Q06
X03
INT/TO
TI
P/ON
TXD
CLK
PIC LEVEL Q05
RV01 PIC LEVEL
PIC MUTE Q381
IC302 D/A CONV.
PIC
COLOR
BRT
SHP
P2N
IC1301
ANTI PRIORITY SCART Q305
VM MUTE Q1305
Y OUT Q1306
L336 BELL
IC303 Y/C SW
DL401
Y AMP Q333
DL332
V AMP Q330
VIDEO BUFF Q332
Y BUFF Q1301
IC2 VIDEO PROCESSOR
XO1
CT01
IC4 STATIC RAM
IC3 EURO CCT
SYNC BUFF Q04
5V REG Q01
ST-BY Q03
12V REG Q02
7V
14V
BLK OUT Q07
R OUT Q11
G OUT Q10
B OUT Q09
BLK
R
G
B
S TV
CHR
SCP
ABL
CANAL + BLANKING Q312
+BLK
TEXT R
TEXT G
TEXT B
ON SCREEN DISPLAY SW Q311
ON SCREEN DISPLAY SW Q313
ABL Q382
FAS PIC MUTE SW Q316
IC301 VIDEO PROCESSOR
BLK 2
PIC
BRT
COLOR
R S/H
G S/H
B S/H
SCP
PD
Y IN
BLK I
R I
G I
B I
ST-BY SW Q303
D303
D302
D301
D309
IC331 C PROCESSOR
SCCP
HUE SERVICE
SECAM
C IN
4.43
NTSC 3.58
PAL
HUE BUFF Q306
SECAM Q335
PAL/NTSC Q334
NTSC 3.58 Q331
D331
D332
D333
X332
X331
CT332
CT331
L331 B-Y
RV331 R-Y
IC332 1H DELAY LINE
R-Y
B-Y
R OUT
G OUT
B OUT
AC
R DRIVE Q702
R OUT Q703
G DRIVE Q705
G OUT Q706
B DRIVE Q708
B OUT Q709
AUTO CUTOFF
D801
D802
27V
135V
200V
VM IN
PRE AMP Q751,752
PUSH-PULL OUT Q753,754
VM OUT

KV-E2911D
RM-689



5-2. CIRCUIT BOARDS LOCATION



Reference information

RESISTOR	: RN	METAL FILM
	: RC	SOLID
	: FPRD	NONFLAMMABLE CARBON
	: FUSE	NONFLAMMABLE FUSIBLE
	: RS	NONFLAMMABLE METAL OXIDE
	: RB	NONFLAMMABLE CEMENT
	: RW	NONFLAMMABLE WIREWOUND
	: ※	ADJUSTMENT RESISTOR
COIL	: LF-8L	MICRO INDUCTOR
CAPACITOR	: TA	TANTALUM
	: PS	STYROL
	: PP	POLYPROPYLENE
	: PT	MYLAR
	: MPS	METALIZED POLYESTER
	: MPP	METALIZED POLYPROPYLENE
	: ALB	BIPOLAR
	: ALT	HIGH TEMPERATURE
	: ALR	HIGH RIPPLE

5-3. SCHEMATIC DIAGRAMS AND PRINTED WIRING BOARDS — Conductor Side —

Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Note :

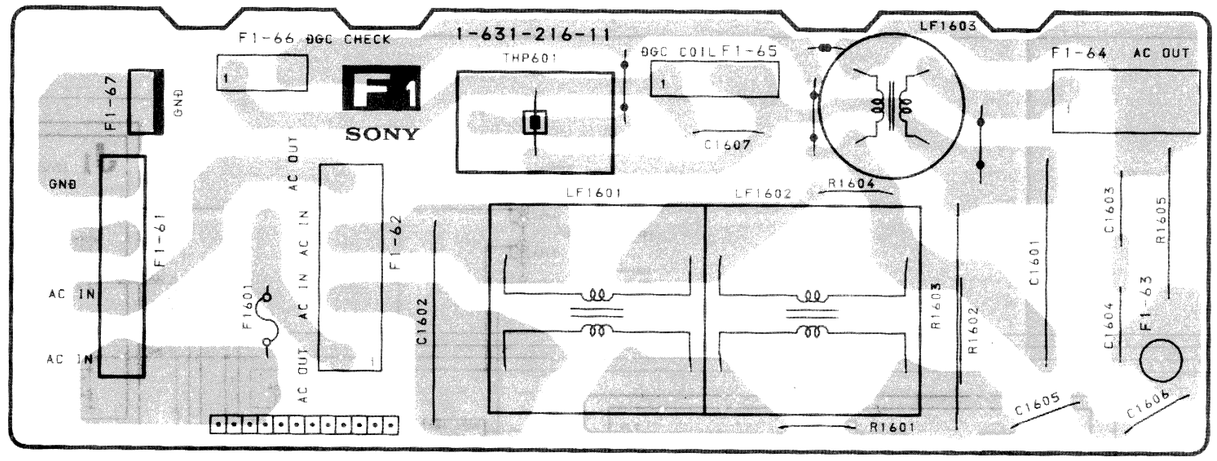
- All capacitors are in μF unless otherwise noted. pF : μμF 50WV or less are not indicated except for electrolytics.
- Indication of resistance, which does not have one for rating electrical power, is as follows.

  Pitch : 5mm
  Rating electrical power : 1/4W

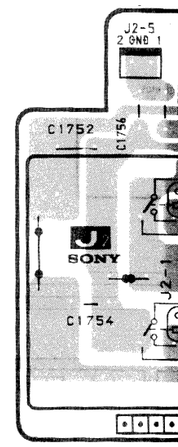
- Chip resistor is in 1/10W.
- All resistors are in ohms. kΩ = 1000Ω, MΩ = 1000k Ω
- : nonflammable resistor.
- : fusible resistor.
- △ : internal component.
- : panel designation.
- All variable and adjustable resistors have characteristic curve B.unless otherwise noted.
- All voltages are in V.
- Readings are taken with a 10MΩ digital multimeter.
- Readings are taken with a color-bar signal input.
- : adjustment for repair.
- Voltage variations may be noted due to normal production tolerances.
- : B + line.
- : signal path.

F1 (AC IN/OUT) **F2** (POWER SW) **H1** (CONTROL SW, AV INPUT, HEADPHONE JACK) **H2** (RMT RECIEVER, INDICATOR) **J2** (SPEAKER TERMINAL) **Z** (PULSE SUP

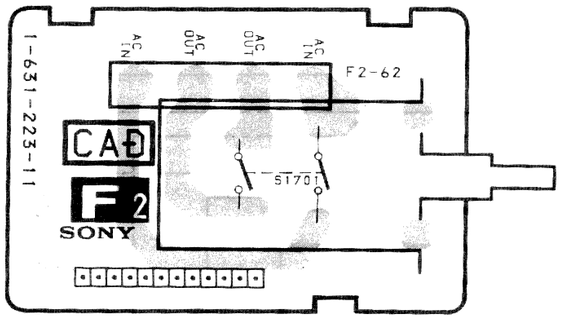
— F1 Board —



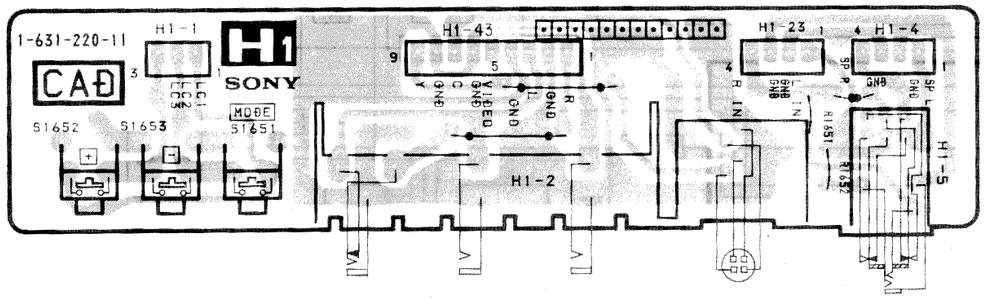
— J2 Board —



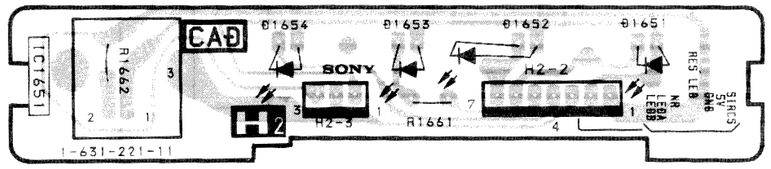
— F2 Board —



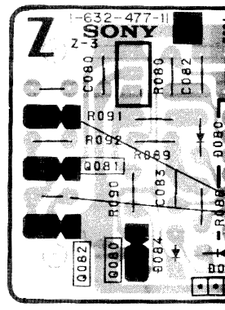
— H1 Board —



— H2 Board —

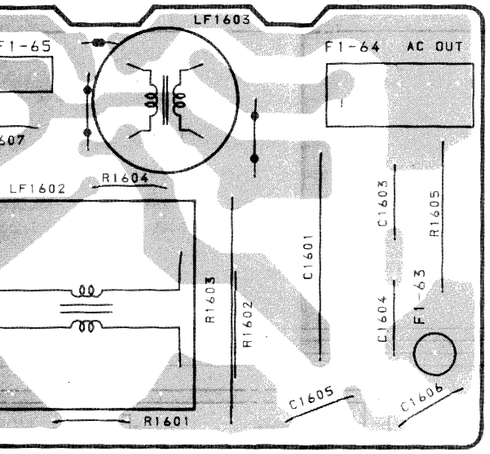


—Z Board—

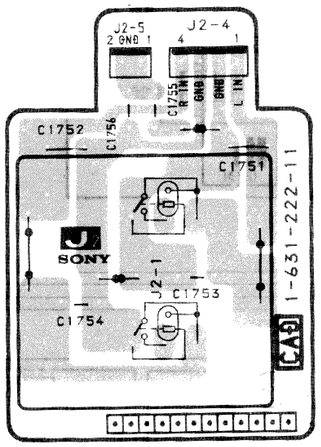


J2 (RMT RECIEVER, INDICATOR) **J2** (SPEAKER TERMINAL) **Z** (PULSE SUPPLIER, 8TH BIT DET) **J1** (INTERFACE, AUDIO CONTROL, AV SW, Y/C SW, VIDEO AMP, PIN AMP)

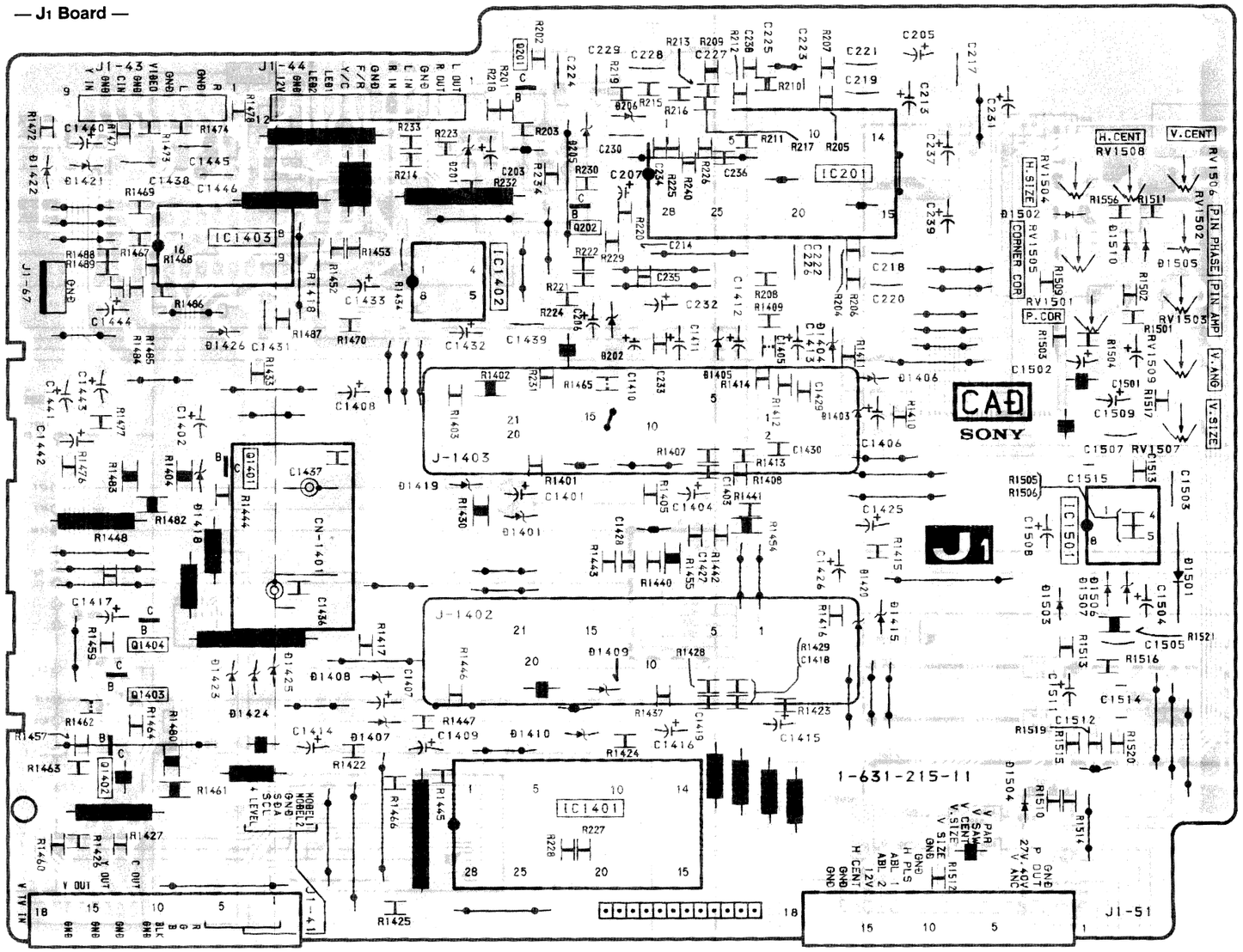
A



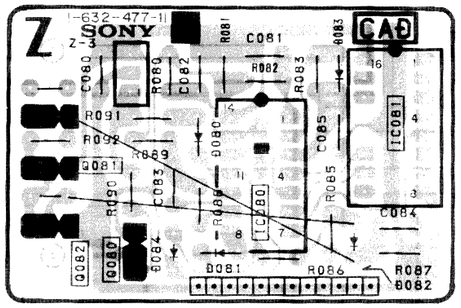
— J2 Board —

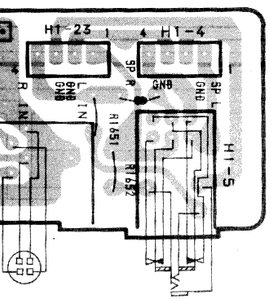


— J1 Board —



—Z Board—

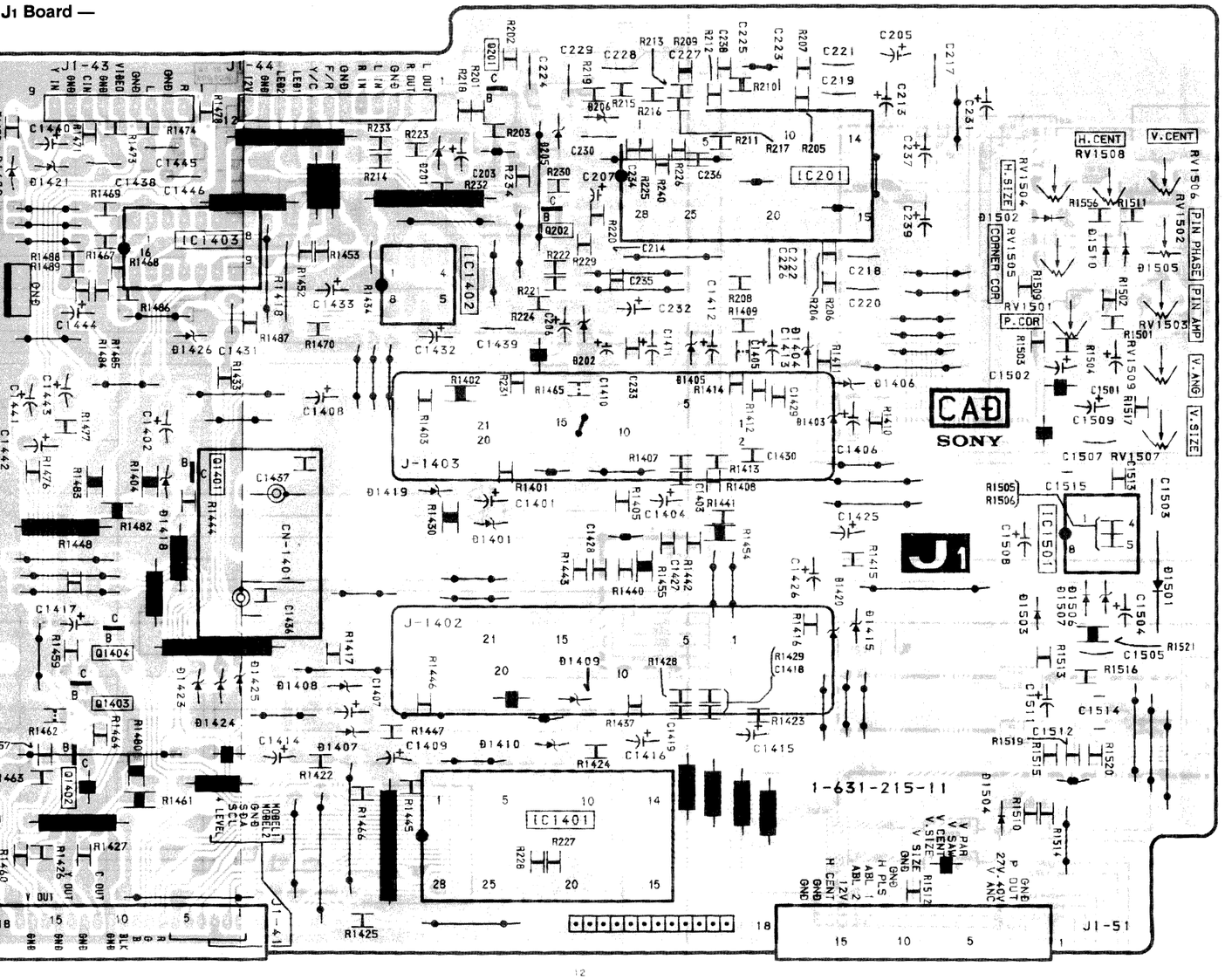




KV-E2911D RM-689

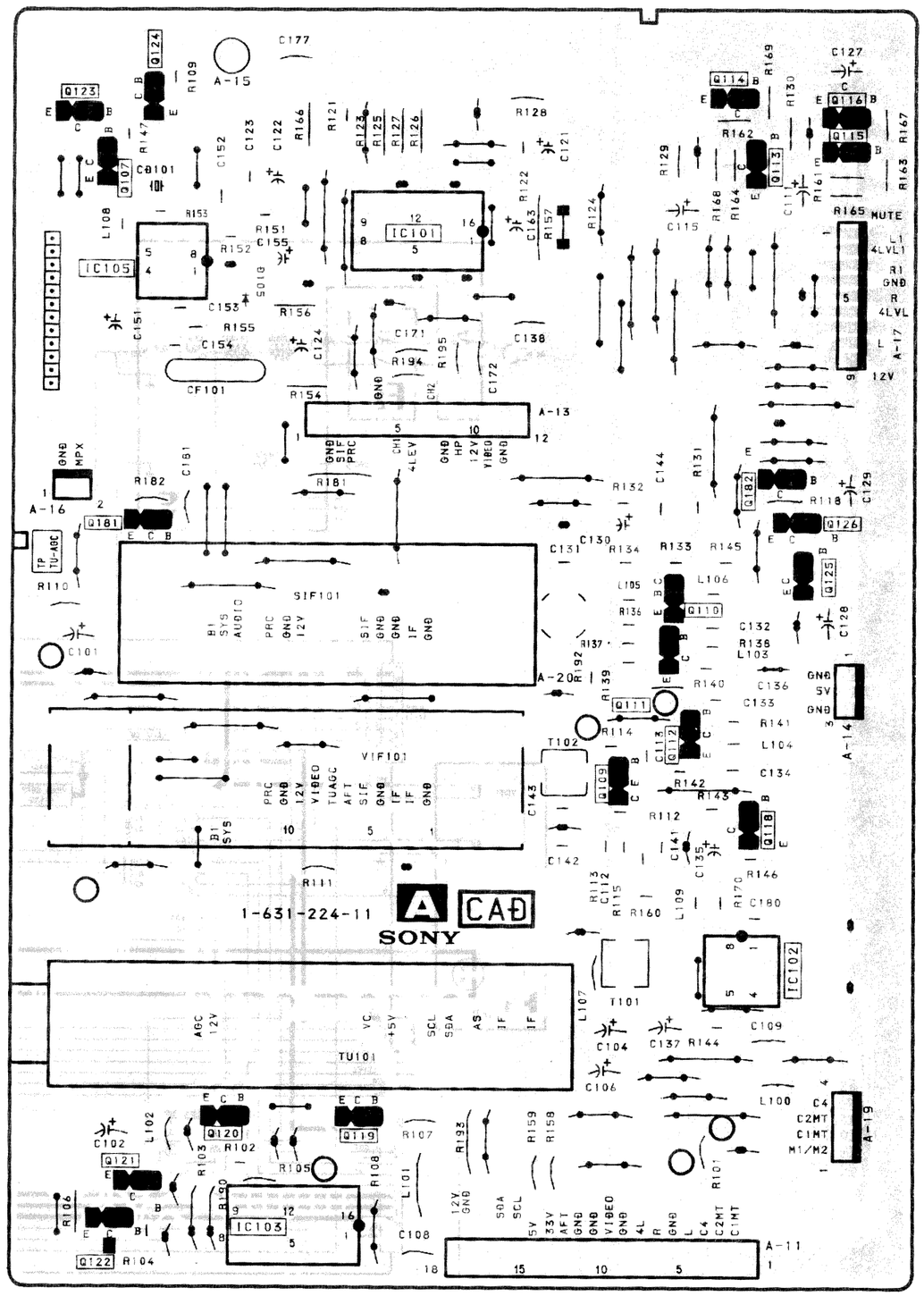
ACE, AUDIO CONTROL, AV SW,
VIDEO AMP, PIN AMP)

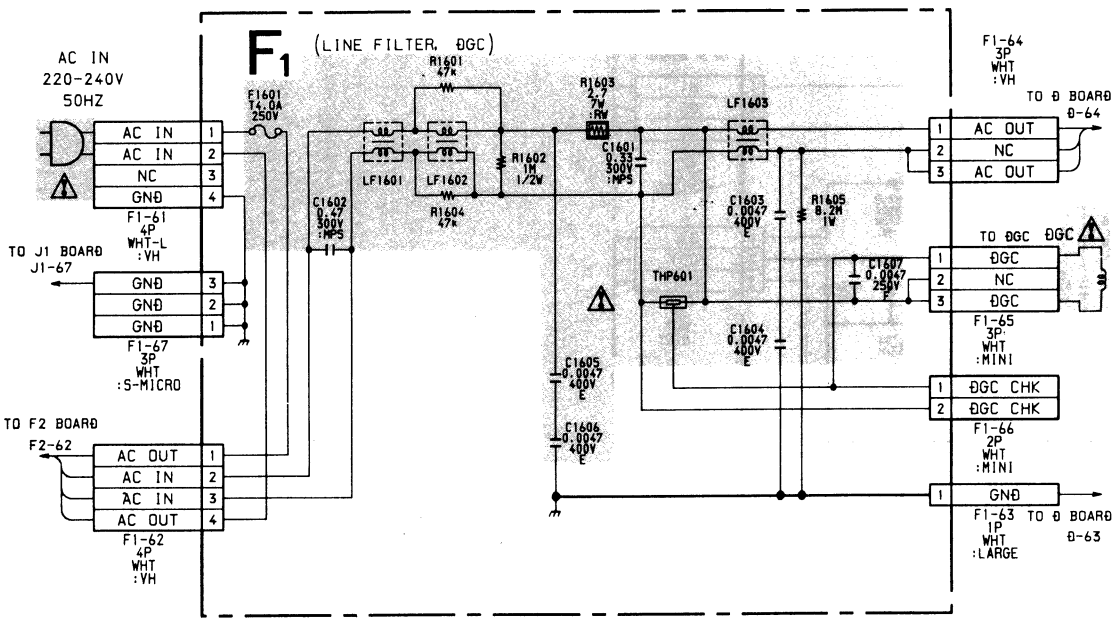
— J1 Board —

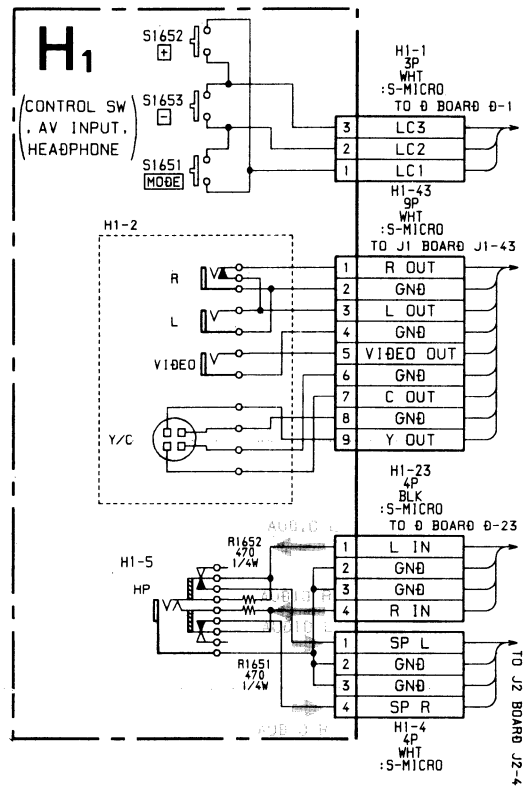


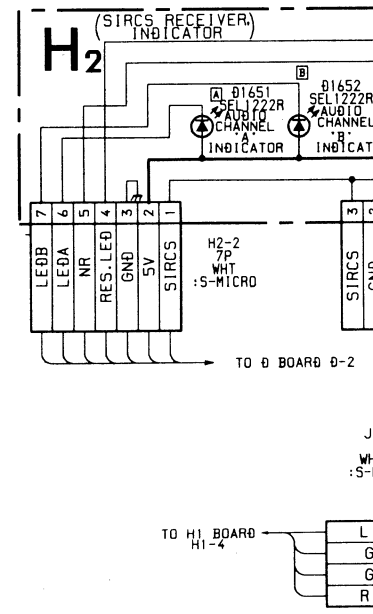
A (VIF, SIF)

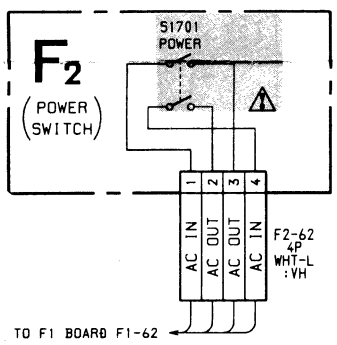
— A Board —



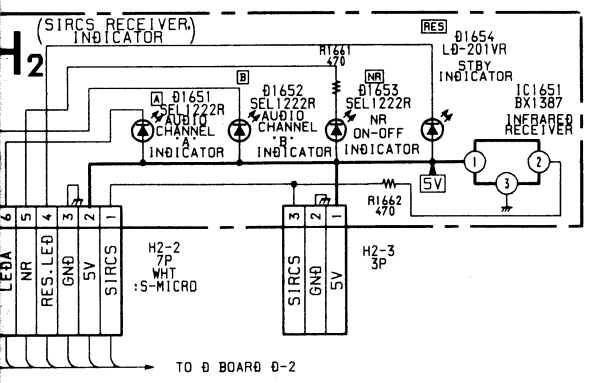

F1
(LINE FILTER, ΘGC)
AC IN
220-240V
50HZ
F1601
T4.0A
250V
R1601
47k
R1603
2.7Ω
:RW
LF1603
LF1601
LF1602
R1602
1M
1/2W
C1601
0.33
300V
:MPS
R1604
47k
C1602
0.47
300V
:MPS
C1603
0.0047
400V
E
R1405
8.2M
1W
THP601
C1604
0.0047
400V
E
C1605
0.0047
400V
E
C1606
0.0047
400V
E
C1607
0.0047
250V
P
AC IN
AC IN
NC
GNΘ
F1-61
4P
WHT-L
:VH
TO J1 BOARΘ
J1-67
GNΘ
GNΘ
GNΘ
F1-67
3P
WHT
:S-MICRO
TO F2 BOARΘ
F2-62
AC OUT
AC IN
AC IN
AC OUT
F1-62
4P
WHT
:VH
F1-64
3P
WHT
:VH
TO Θ BOARΘ
Θ-64
AC OUT
NC
AC OUT
TO ΘGC
ΘGC
ΘGC
NC
ΘGC
F1-65
3P
WHT
:MINI
ΘGC CHK
ΘGC CHK
F1-66
2P
WHT
:MINI
GNΘ
F1-63 TO Θ BOARΘ
1P
WHT
Θ-63
:LARGE

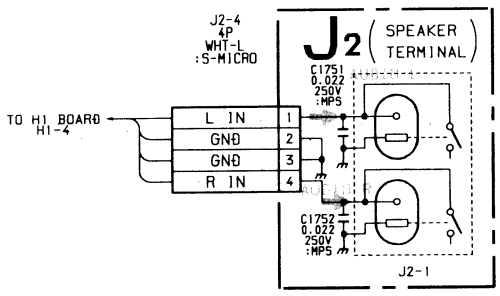

H1
(CONTROL SW
, AV INPUT,
HEADPHONE)
S1652
S1653
S1651
MODE
H1-1
3P
WHT
:S-MICRO
TO Θ BOARΘ Θ-1
LC3
LC2
LC1
H1-43
9P
WHT
:S-MICRO
TO J1 BOARΘ J1-43
H1-2
R
L
VIΘΘEO
Y/C
R OUT
GNΘ
L OUT
GNΘ
VIΘΘEO OUT
GNΘ
C OUT
GNΘ
Y OUT
H1-23
4P
BLK
:S-MICRO
TO Θ BOARΘ Θ-23
H1-5
HP
R1652
470
1/4W
R1651
470
1/4W
L IN
GNΘ
GNΘ
R IN
SP L
GNΘ
GNΘ
SP R
H1-4
4P
WHT
:S-MICRO
TO J2 BOARΘ J2-4

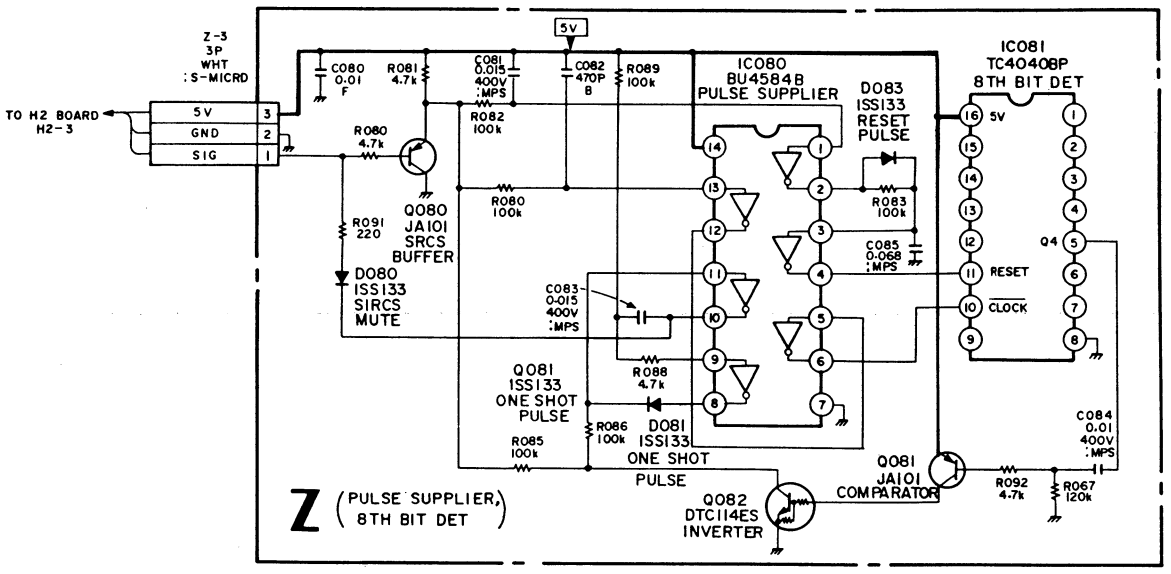

H2
(SIRCS RECEIVER,
INΘICATOR)
Θ1651
SELJ222R
AUΘIO
CHANNEL
A
INΘICATOR
Θ1652
SELJ222R
AUΘIO
CHANNEL
B
INΘICAT
LEΘB
LEΘA
NR
RES.LEΘ
GNΘ
5V
SIRCS
H2-2
7P
WHT
:S-MICRO
TO Θ BOARΘ Θ-2
SIRCS
TO H1 BOARΘ
H1-4
L
G
G
R

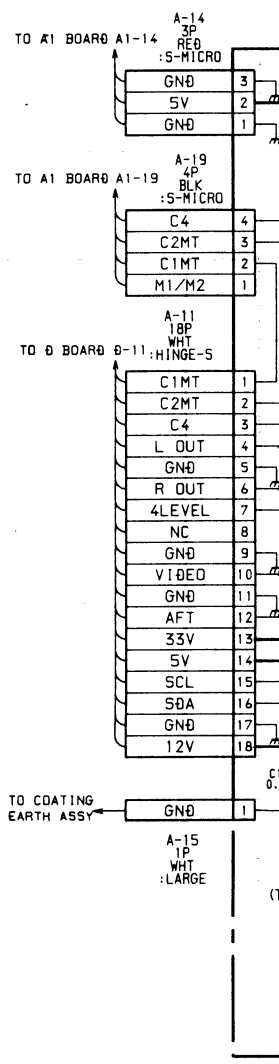

F2
(POWER
SWITCH)
S1701
POWER
AC IN
AC OUT
AC OUT
AC IN
F2-62
4P
WHT-L
:VH
TO F1 BOARΘ F1-62

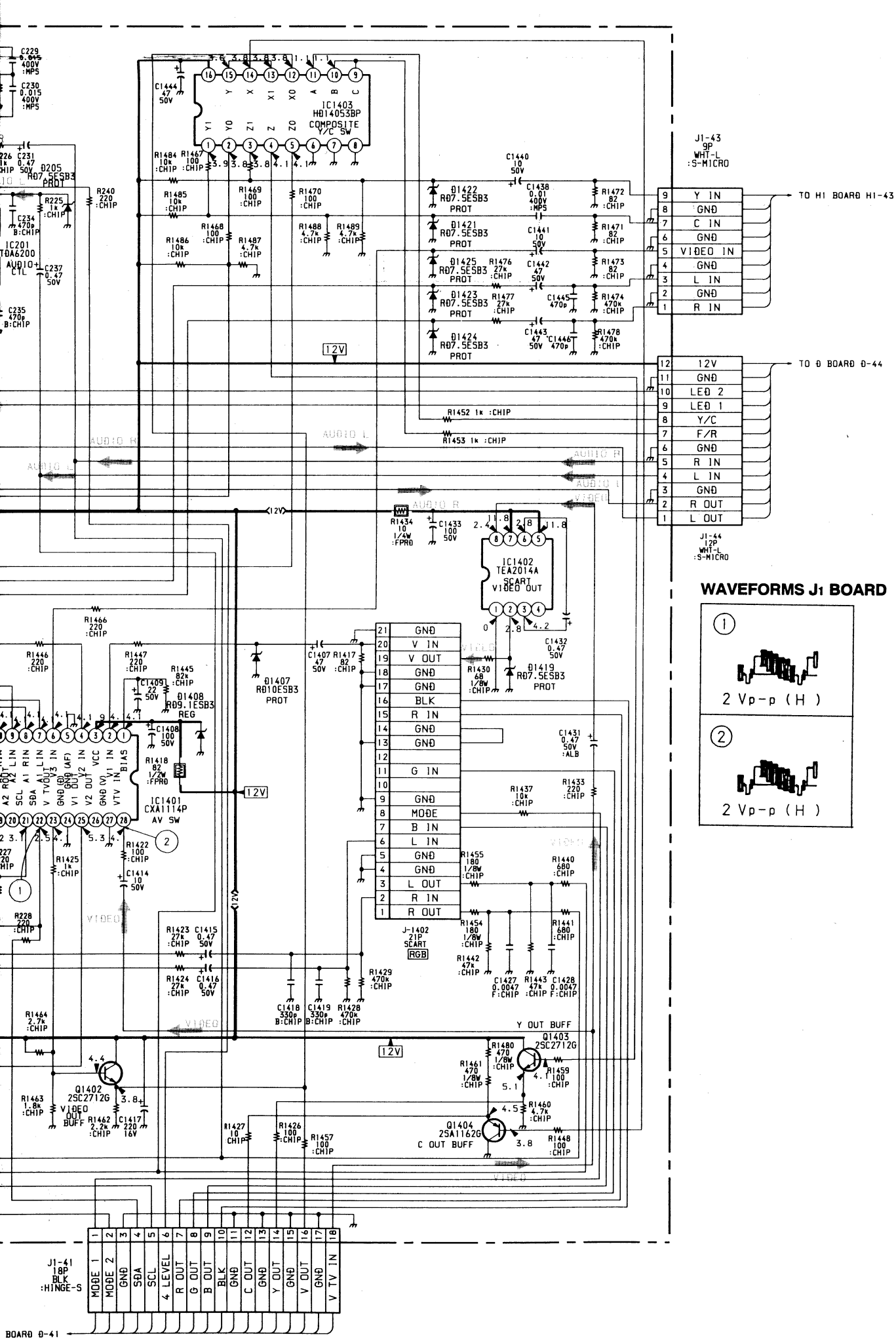
C1436
0.001
B:CHIP
C203
2.2
50V
R223
1.2k
:CHIP
Q201
2SC2712G
AUΘIO R BUFF
R201
33k
:CHIP
R233
2.2k
:CHIP
4.3
0.7
R203
6.8k
:CHIP
R202
5.6k
:CHIP
Θ201
RΘ9.1ESB3
PROT
CN1401
C206
2.2
50V
R224
1.2k
:CHIP
Q202
2SC2712G
AUΘIO L BUFF
R230
33k
:CHIP
R234
2.2k
:CHIP
4.2
0.7
R229
6.8k
:CHIP
R220
5.6k
:CHIP
Θ202
RΘ9.1ESB3
PROT
C1437
0.001
B:CHIP
R231
2.7k
:CHIP
J1-67
3P
WHT-L
:S-MICRO
TO F1 BOARΘ
F1-67
GNΘ
GNΘ
GNΘ
C224
0.01
400V
:MPS
R209
22k
:CHIP
C227
0.022
250V
:MPS
R212
22k
:CHIP
R213
15k :CHIP
R215
22k
:CHIP
C229
0.015
400V
:MPS
C219
0.022
250V
:MPS
C221
0.0033
100V
:PT
C238
220p
:CHIP
R216
22k
:CHIP
C228
0.033
250V
:MPS
R219
10k
:CHIP
C230
0.015
400V
:MPS
C217
0.0068
400V
:MPS
C225
0.47
50V
:MPS
R210
15k
:CHIP
Θ206
RΘ7.5ESB3
PROT
R211
100k
:CHIP
C236
470p
B:CHIP
R226
1k
:CHIP
C231
0.47
50V
C205
4.7
50V
R205
33k
:CHIP
R207
3.3k
:CHIP
C223
0.056
100V
:MPS
R217
15k
:CHIP
Θ205
RΘ7.5ESB3
PROT
R240
220
:CHIP
C213
22
50V
R225
1k
:CHIP
C234
470p
B:CHIP
IC201
TΘA6200
AUΘIO
CTL
C237
0.47
50V
LOUT
ΘCOUP
VCC
ROUT
GNΘ
EXP
TRE
BASS
BASS
LBASS
BASS
QOUT
QIN
RBASS
SWOUT
AF2IN
4LEL
AF1IN
LIN
C207
4.7
50V
R204
33k
:CHIP
R206
3.3k
:CHIP
C222
0.056
100V
:MPS
R221
1k
:CHIP
R222
1k
:CHIP
C232
10
50V
C233
470p
B:CHIP
C235
470p
B:CHIP
C214
0.0068
400V
:MPS
C218
0.022
250V
:MPS
C220
0.0033
100V
:PT
R208
15k
:CHIP
R214 220 :CHIP
R218 220 :CHIP
12V
C239
470
16V
LEΘB
LEΘA
NR
RES.LEΘ
GNΘ
5V
SIRCS
SCL
SΘA
REF
RIN
LIN
LEΘ2
LEΘ1
TO Θ BOARΘ Θ-2
TO J1 BOARΘ J1-43
TO J2 BOARΘ J2-4
TO H1 BOARΘ H1-4
TO F1 BOARΘ F1-62
TO F1 BOARΘ F1-63
TO F1 BOARΘ F1-64
TO F1 BOARΘ F1-65
TO F1 BOARΘ F1-66
TO F1 BOARΘ F1-67
TO J2 BOARΘ J2-23
TO J2 BOARΘ J2-24
TO J2 BOARΘ J2-25
TO J2 BOARΘ J2-26
TO J2 BOARΘ J2-27
TO J2 BOARΘ J2-28
TO J2 BOARΘ J2-29
TO J2 BOARΘ J2-30
TO J2 BOARΘ J2-31
TO J2 BOARΘ J2-32
TO J2 BOARΘ J2-33
TO J2 BOARΘ J2-34
TO J2 BOARΘ J2-35
TO J2 BOARΘ J2-36
TO J2 BOARΘ J2-37
TO J2 BOARΘ J2-38
TO J2 BOARΘ J2-39
TO J2 BOARΘ J2-40
TO J2 BOARΘ J2-41
TO J2 BOARΘ J2-42
TO J2 BOARΘ J2-43
TO J2 BOARΘ J2-44
TO J2 BOARΘ J2-45
TO J2 BOARΘ J2-46
TO J2 BOARΘ J2-47
TO J2 BOARΘ J2-48
TO J2 BOARΘ J2-49
TO J2 BOARΘ J2-50
TO J2 BOARΘ J2-51
J1
AUΘIO CONTROL,
AV INPUT,
Y/C INPUT,
SCART VIΘΘO OUT,
EAST-WEST CORRCTION
PIN PHASE
R1505
22k
:CHIP
RV1502
10k
R1504
33k
:CHIP
R1502
27k
:CHIP
C1513
33p
:CHIP
P.COR
R1503
470k
:CHIP
C1502
10
50V
C1501
10
50V
PIN AMP
RV1501
470k
R1501
22k
:CHIP
RV1503
22k
IC1501
TEA2031A
EAST-WEST
CORRECTION
GNΘ
IREF
X IN 2
X IN 1
OUT
VCC
X OUT
X IN 1
COMP
R1519
150k
:CHIP
Θ1507
1SS133
PROT
R1521
4.7k
1/8W
:CHIP
CORNER
COR
Θ1506
RΘ36ESB4
PROT
RV1505
470k
ΘECOUPLTNG H SIZE
Θ1502
1SS133
R1509
220k
:CHIP
C1508
10
50V
R1513
56k
:CHIP
C1511
10
50V
R1514
1k
:CHIP
C1503
0.001
100V
:PT
R1506
470k
:CHIP
RV1504
1k
H.SIZE
R1516
18k
:CHIP
R1556
5.6k
:CHIP
Θ1510
1SS133
REG
Θ1505
1SS133
REG
C1507
0.0033
100V
:PT
Θ1501
RGP10GPKG23
PROT
27V
R1511
1k
:CHIP
R1510
5.6k
:CHIP
Θ1503
1SS133
CLIPPING
PARABOLA
C1505
0.047
100V
:MPS
R1512
10k
:CHIP
Θ1504
1SS133
12V
C1504
47
50V
CLIPPING H PULSE
C1509
1
50V
R1520
390k
:CHIP
V.SIZE
RV1507
220
RV1506
22k
V.CENT
H.CENT
RV1508
10k
RV1509
470k
R1517
220
:CHIP
V.ANG
GNΘ
GNΘ
H CENT
12V
ABL 2
ABL 1
H PLS
GNΘ
GNΘ
V SIZE
V SIZE
V CENT
V SAW
V PAR
V ANG
27V-40V
P OUT
GNΘ
J1-51
18P
BLK
:HINGE-S
TO Θ BOARΘ Θ-51
GNΘ
V IN
V OUT
GNΘ
GNΘ
BLK
COLOUR IN
GNΘ
MODE
L IN
GNΘ
GNΘ
L OUT
R IN
R OUT
J-1403
21P
SCART
Y/C
C1401
10
50V
R1401
82
:CHIP
R1402
68
1/8W
:CHIP
R1403
47k
:CHIP
C1402
470
16V
Θ1401
RΘ7.5ESB3
PROT
R1465
82
:CHIP
C1439
0.01
400V
:MPS
Θ1426
RΘ7.5ESB3
PROT
R1405
10k
:CHIP
C1404
0.47
50V
R1408
27k
:CHIP
Θ1403
RΘ7.5ESB3
PROT
R1407
470k
:CHIP
C1403
470p
B:CHIP
C1412
47
50V
R1409
470
:CHIP
C1413
47
50V
C1406
0.47
50V
R1411
470
:CHIP
R1410
27k
:CHIP
R1412
47k
:CHIP
C1429
0.0047
F:CHIP
R1413
470k
:CHIP
R1414
47k
:CHIP
C1430
0.0047
F:CHIP
C1405
470p
B:CHIP
Θ1404
RΘ7.5ESB3
PROT
Θ1405
RΘ7.5ESB3
PROT
Θ1406
RΘ7.5ESB3
PROT
R1404
150
1/8W
:CHIP
Θ1415
RΘ7.5ESB3
PROT
Θ1420
RΘ7.5ESB3
PROT
R1482
150
1/8W
:CHIP
R1483
150
1/8W
:CHIP
Θ1410
RΘ9.1ESB3
PROT
Θ1409
RΘ9.1ESB3
R1464
2.7k
:CHIP
4.7
4.1
Q1401
2SA1162G
VIΘΘO
OUT
BUFF
Θ1418
RΘ7.5ESB3
PROT
R1444
220
:CHIP
4.4
Q1402
2SC2712G
3.8
R1463
1.8k
:CHIP
VIΘΘO
OUT
BUFF
R1462
2.2k
:CHIP
C1417
220
16V
R1416
27k
:CHIP
C1426
0.47
50V
R1415
27k
:CHIP
C1425
0.47
50V
R1466
220
:CHIP
R1446
220
:CHIP
R1447
220
:CHIP
R1445
82k
:CHIP
C1409
22
50V
Θ1408
RΘ9.1ESB3
REG
C1408
22
50V
R1418
82
1/2W
:FPRO
IC1401
CXA1114P
AV SW
ATVL OUT
ATVROUT
A1 LOUT
A1 ROUT
A2 LOUT
A2 ROUT
SCL
SΘA
GNΘ (ΘGC)
GNΘ (AF)
VCC
GNΘ (V)
BIAS
C1410
10
50V
R227
220
:CHIP
R1425
1k
:CHIP
R1422
100
:CHIP
C1414
10
50V
C1411
10
50V
R228
220
:CHIP
VIΘΘO
R1423
27k
:CHIP
R1424
27k
:CHIP
J1-41
18P
BLK
:HINGE-S
MODE 1
MODE 2
GNΘ
SΘA
SCL
4 LEVEL
R OUT
G OUT
TO Θ BOARΘ Θ-41





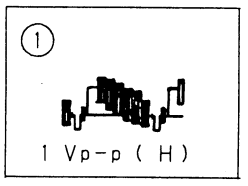




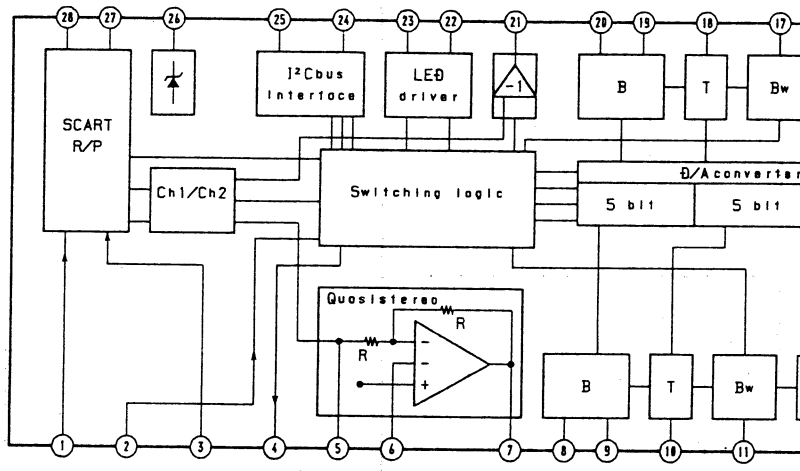


WAVEFORMS J1 BOARD

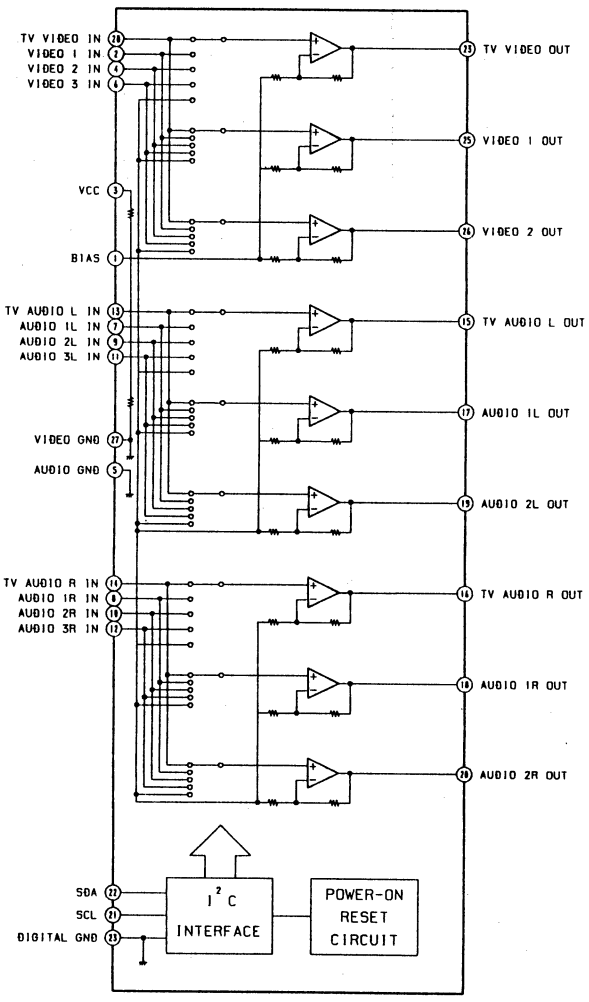
WAVEFORMS A BOARD



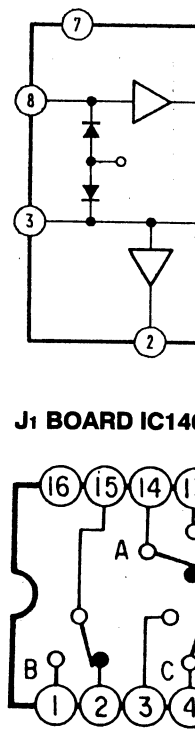
J1 BOARD IC201 TDA6200

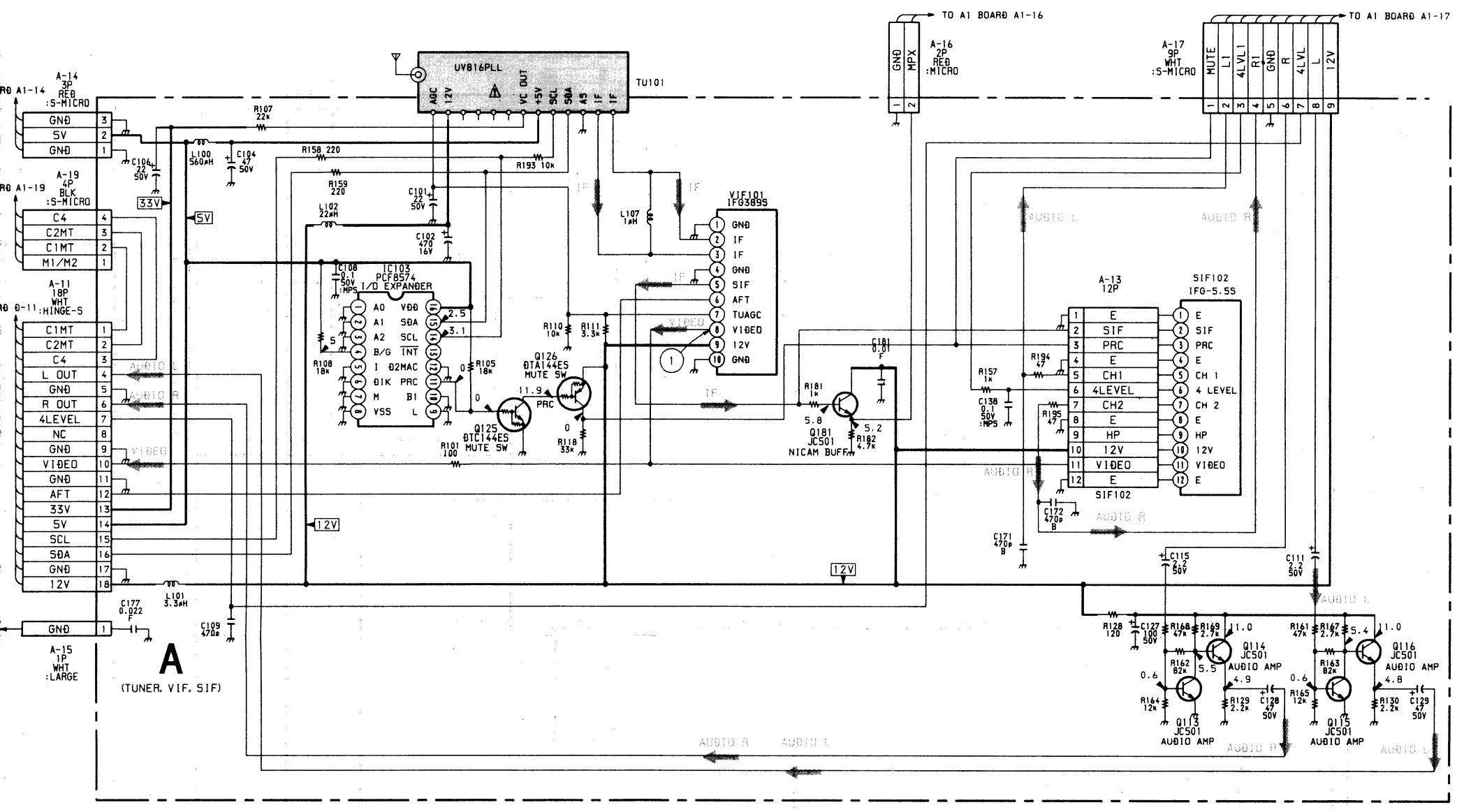


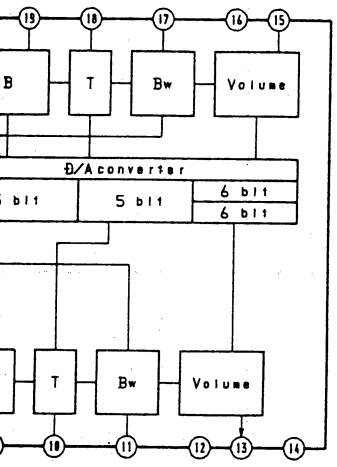
J1 BOARD IC1401 CXA1114P



J1 BOARD IC14

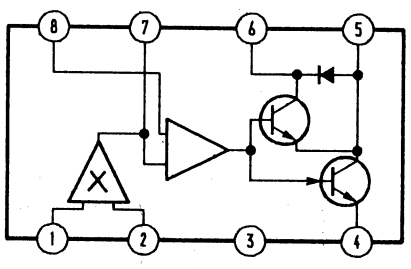




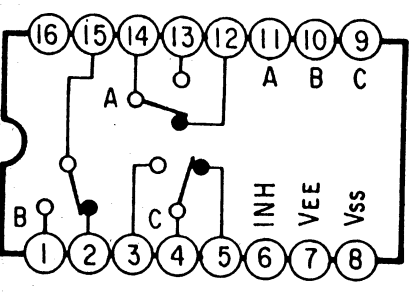


J1 BOARD IC1402 TEA2014A

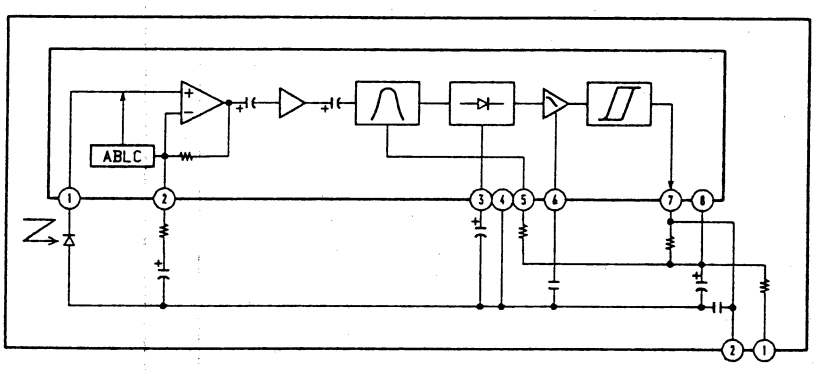
J1 BOARD IC1501 TEA2031

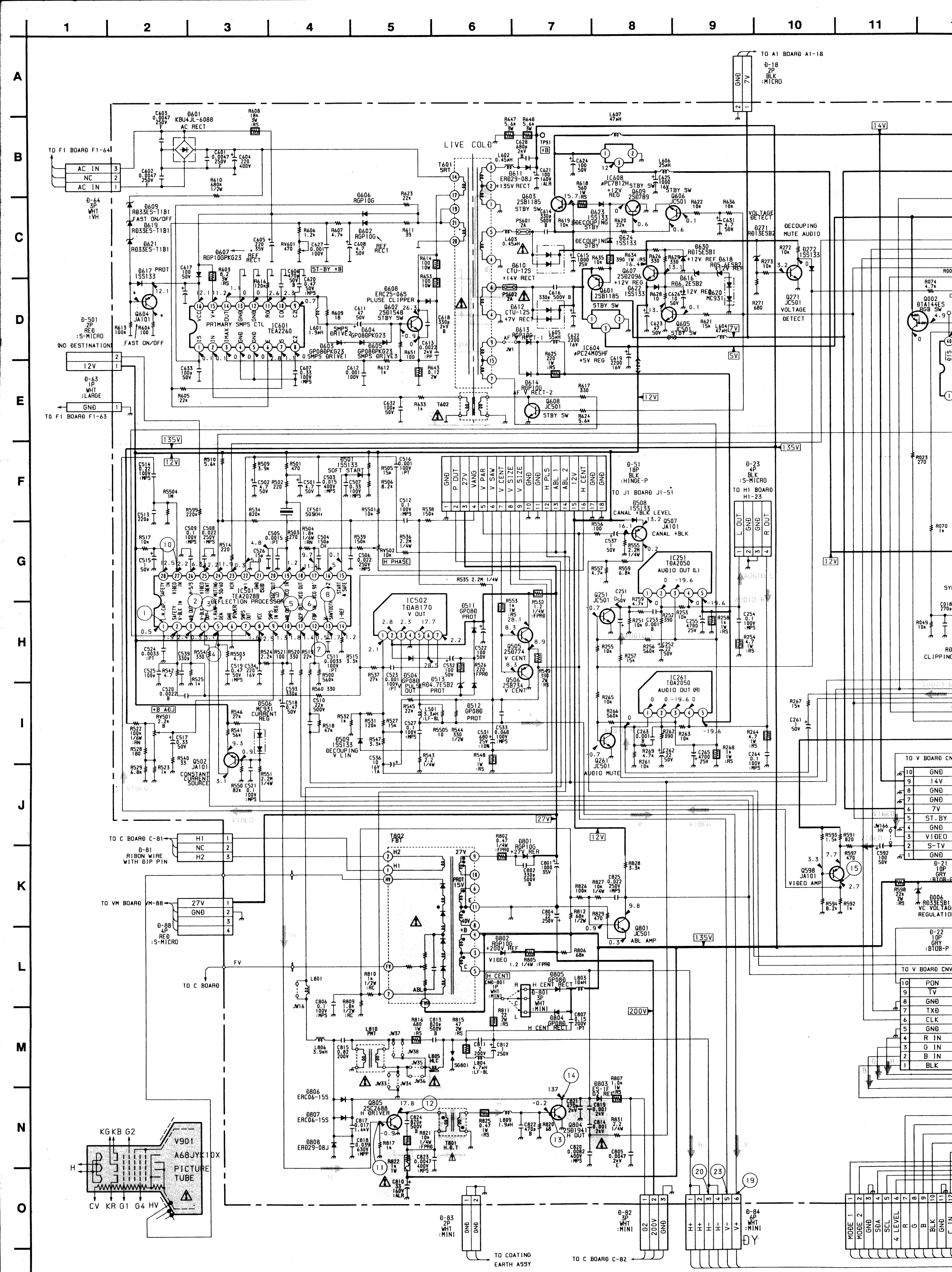


J1 BOARD IC1403 HD14053BP



H2 BOARD IC1651 BX1387




TO A1 BOARD A1-18
D-18 2P BLK :MICRO
GND
7V
TO F1 BOARD F1-64
D-64 3P WHT :VH
AC IN
NC
AC IN
D601 KBU4JL-6088 AC RECT
LIVE COLD
TP91 +B
T601 5RT
D611 ER029-08J +135V RECT
IC608 μPC7812H +12V REG
Q603 2SB1185 STBY SW
Q609 2SD789
Q606 JC501
D606 RGP10G
D602 RGP10G REF RECT
D607 RGP10GPKG23 REF RECT
D609 RD33ES-T1B1 FAST ON/OFF
D619 RD33ES-T1B1
D621 RD33ES-T1B1
D617 PROT 1SS133
Q604 JA101
D-501 2P RED :S-MICRO (NO DESTINATION)
FAST ON/OFF
12V
D-63 1P WHT :LARGE
GND
TO F1 BOARD F1-63
IC601 TEA2260 PRIMARY SMPS CTL
D603 GP08DPKG23 SMPS DRIVE1
D604 GP08DPKG23 SMPS DRIVE2
D605 GP08DPKG23 SMPS DRIVE3
D608 ERC25-06S PLUSE CLIPPER
Q602 2SD1548 STBY SW
D610 CTU-12S +14V RECT
D612 CTU-12S +7V RECT
D613 RGP10G AFC RECT-1
D614 RGP10G AFC RECT-2
Q608 JC501 STBY SW
IC604 μPC24M05HF +5V REG
Q607 2SD2096 +12V REG
Q601 2SB1185 STBY SW
D630 RD15ESB1 +12V REF
D618 RD5.6ESB2 +12V REF
D616 RD6.2ESB2
Q620 MC931
Q605 JC501 STBY SW
D622 1SS133
D623 1SS133
D624 1SS133
DECOUPING STBY
VOLTAGE DETECT
D271 RD13ESB2
DECOUPING MUTE AUDIO
Q271 JC501 VOLTAGE DETECT
D272 1SS133
Q002 DTA144ES RGB SW
14V
7V
5V
12V
135V
27V
200V
D-51 18P BLK :HINGE-P
TO J1 BOARD J1-51
GND P OUT 27V VANG V PAR V SAW V CENT V SIZE V SIZE GND GND H PLS ABL 1 ABL 2 12V H CENT GND GND
D-23 4P BLK :S-MICRO
TO H1 BOARD H1-23
L OUT GND GND R OUT
IC501 TEA2028B DEFLECTION PROCESSOR
D501 1SS133 SOFT START
H PHASE
Q508 1SS133 CANAL +BLK LEVEL
Q507 JA101 CANAL +BLK
IC251 TDA2050 AUDIO OUT (L)
IC261 TDA2050 AUDIO OUT (R)
Q251 JC501
Q261 JC501 AUDIO MUTE
IC502 TDA8170 V OUT
Q511 GP08D PROT
Q505 2SD774 V CENT
Q506 2SB734 V CENT
D504 GP08D V PULSE OUT
D513 RD4.7ESB2 PROT
D512 GP08D PROT
D509 1SS133 DECOUPING V LIN
D506 MC931 CURRENT REG
Q502 JA101 CONSTANT CURRENT SOURCE
+B ADJ
TO C BOARD C-81
D-81 RIBON WIRE WITH DIP PIN
H1
NC
H2
TO VM BOARD VM-88
27V
GND
D-88 4P RED :S-MICRO
FV
TO C BOARD
TBO2 FBT
D801 RGP10G +27V REF
Q801 JC501 ABL AMP
D802 RGP10G +200V REF
VIDEO
D805 GP08D H CENT RECT
D804 GP08D H CENT RECT
H CENT
CN8-801 1P WHT :MINI
D-801 3P WHT :MINI
ABL
IC801 TDA4601 DY DRIVE
Q805 2SC2688 H DRIVER
Q804 2SD1941 H OUT
D803 ES-1F G2 REG
D806 ERC06-15S
D807 ERC06-15S
D808 ER029-08J
T801 H.O.T
SG801
V901 A68JYK10X PICTURE TUBE
KG KB G2
H
CV KR G1 G4 HV
D-83 2P WHT :MINI
GND GND
TO COATING EARTH ASSY
D-82 3P WHT :MINI
G2 200V GND
TO C BOARD C-82
D-84 6P WHT :MINI
H+ H+ H- H- V- V+
DY
TO V BOARD CN
10 GND
9 14V
8 GND
7 GND
6 7V
5 ST.BY
4 GND
3 VIDEO
2 S-TV
1 GND
D-21 10P GRY :BTOB-P
D006 RD33ESB1 VC VOLTAGE REGULATION
D-22 10P GRY :BTOB-P
TO V BOARD CNV
10 PON
9 TV
8 GND
7 TXD
6 CLK
5 GND
4 R IN
3 G IN
2 B IN
1 BLK
MODE 1 MODE 2 GND SDA SCL 4 LEVEL R G B BLK GND
VIDEO AMP
Q598 JA101

D

(TUNING CONTROL, POWER CONTROL, AUDIO OUT, H/V OUT)

TO Y BOARD Y-3
D-3 7P RED :S-MICRO
+14V, +7V, GND, V BLK, NR, NR INIT, 60/50

TO H2 BOARD H2-2
D-2 7P WHT :S-MICRO
SIRCS, +5V, GND, RES.LED, NR, LEDA, LEDB

TO H1 BOARD H1-1
D-1 3P WHT :S-MICRO
LC3, LC2, LC1

TO J1 BOARD J1-44
D-44 6P WHT :S-MICRO
12V, GND, LED 2, LED 1, Y/C, F/R

TO J1 BOARD J1-44
D-45 6P BLK :S-MICRO
GND, R OUT, L OUT, GND, R IN, L IN

TO V BOARD CNV-41
GND, 14V, GND, GND, 7V, ST.BY, GND, VIDEO, S-TV, GND

TO B BOARD B-31
D-31 10P GRY :BTOB-P
V IN, GND, Y OUT, GND, V OUT, YC-SWITCH, C OUT, GND, SDA, SCL

TO V BOARD CNV-42
D-21 10P GRY :BTOB-P
PON, TV, GND, TXD, CLK, GND, R IN, G IN, B IN, BLK

TO B BOARD B-32
D-22 10P GRY :BTOB-P
HUE, ST.BY, MUTE, CHAR, P/ON, GND, +12, SCP, +BLK, ABL

TO B BOARD B-33
D-32 10P GRY :BTOB-P
D-33 10P GRY :BTOB-P
GND, TEXT R, TEXT G, TEXT B, BLK, GND, R OUT, G OUT, B OUT, BLK1

TO A BOARD A-11
D-11 18P WHT :HINGE-P
C1MT, C2MT, C4, L IN, GND, R IN, 4-LEVEL, NC, GND, VIDEO, GND, AFT, 33V, 5V, SCL, SDA, GND, 12V

TO J1 BOARD J1-41
D-41 18P BLK :HINGE-P
R, G, B, BLK, GND, C IN, GND, Y IN, GND, V IN, GND, V TV OUT

TO VM BOARD CNVM-75
GND, VM, DP-, DP+

IC001 SDA2083 TUNING CTL
IC002 CX01050A-09P ON SCREEN DISPLAY
IC003 BA4558 AFT COMPARATORE
IC005 S0A2546 NY MEMORY

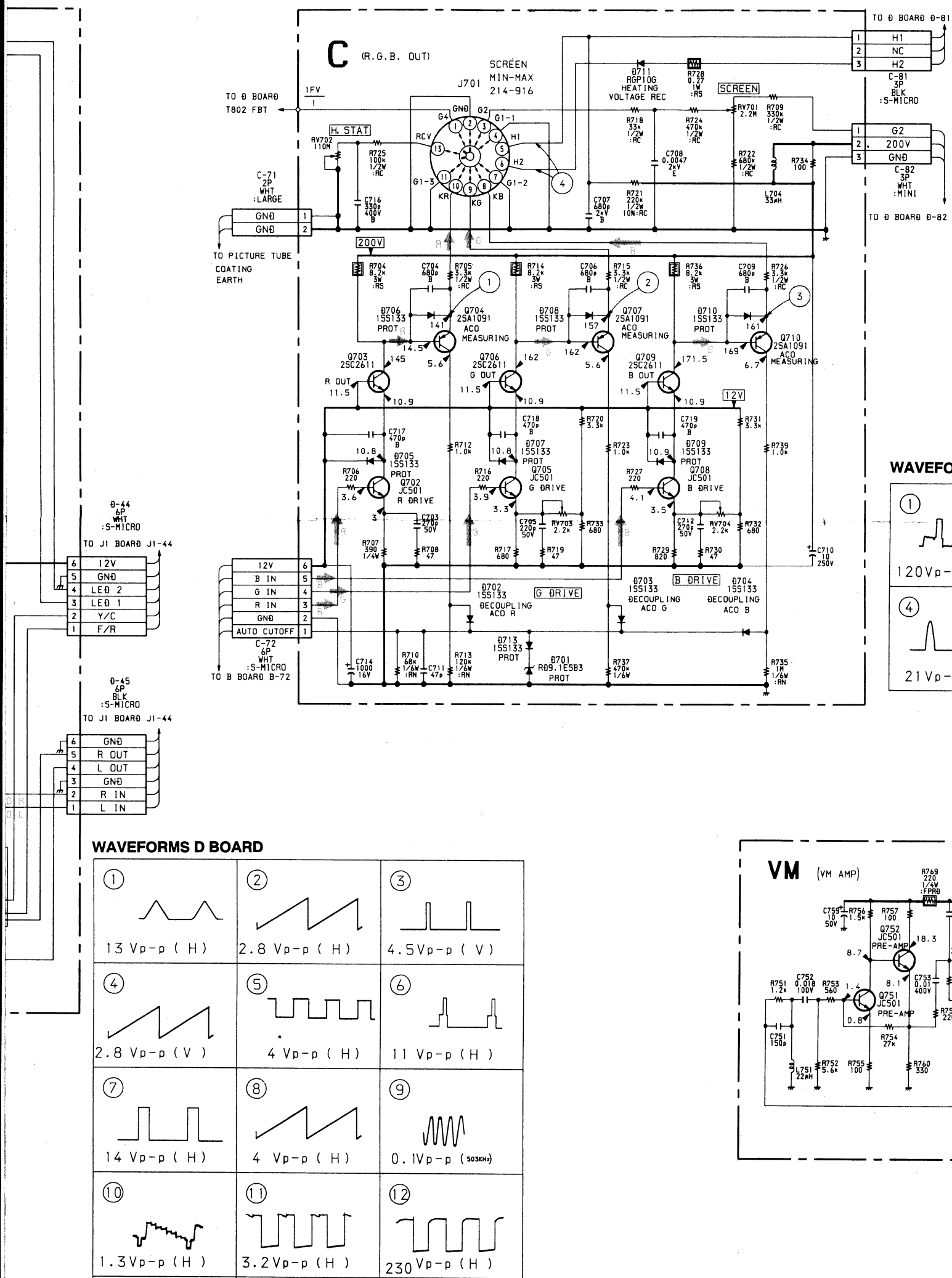
Q001 DTC144ES 50/60HZ SW
Q002 DTA144ES RGB SW
Q003 JA101 SYNC SEPARATOR
Q004 JA101 SYNC SEPARATOR
Q005 DTC144ES Y/C SW
Q006 DTC144ES FRONT/REAR SW
Q007 DTC144ES MODE 2 SWITCH
Q008 DTC144ES MODE 1 SWITCH
Q009 JC501

D001 1SS133 VIDEO IDENTIFICATION
D002 RD6.8ESB3 50/60HZ SW
D003 1SS133 HUE CTL
D004 1SS133 RESET ON SCREEN DISPLAY
D005 RD5.6ESB2 H PULSE CLIPPING
D006 RD33ESB1 VC VOLTAGE REGULATION
D007 1SS133 PROT RESET
D009 RD5.6ESB2 CLIPPING SYNC LEVEL
D010 RD6.2ES-B2
D011 RD6.2ES-B2

DY
NECK

WAVEFORMS D BOAR

① 13 Vp-p (H)	②
④ 2.8 Vp-p (V)	⑤
⑦ 14 Vp-p (H)	⑧
⑩ 1.3Vp-p (H)	⑪
⑬ 13 Vp-p (H)	⑭
⑯ 10.5Vp-p (H)	⑰
⑲ 50Vp-p (V)	⑳
㉒ 3.2Vp-p (12MHz)	㉓

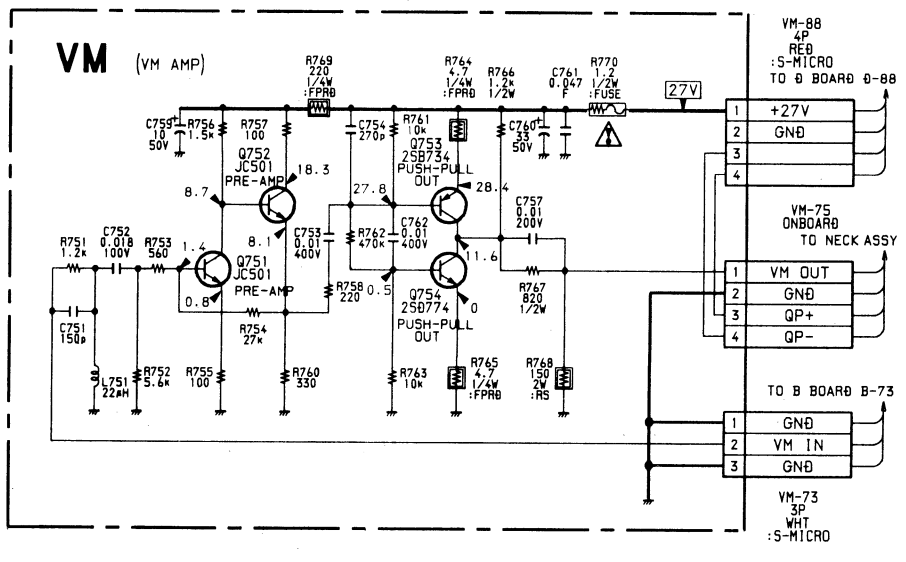


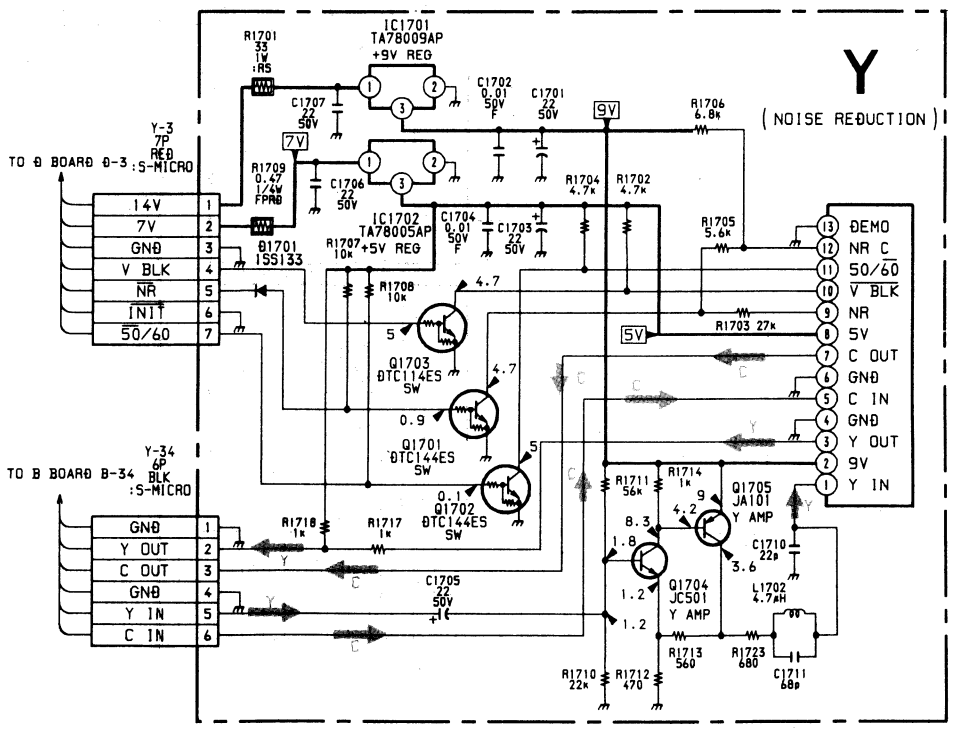
WAVEFORMS C BOARD

① 120Vp-p (H)	② 100 Vp-p (H)	③ 80 Vp-p (H)
④ 21Vp-p (H)		

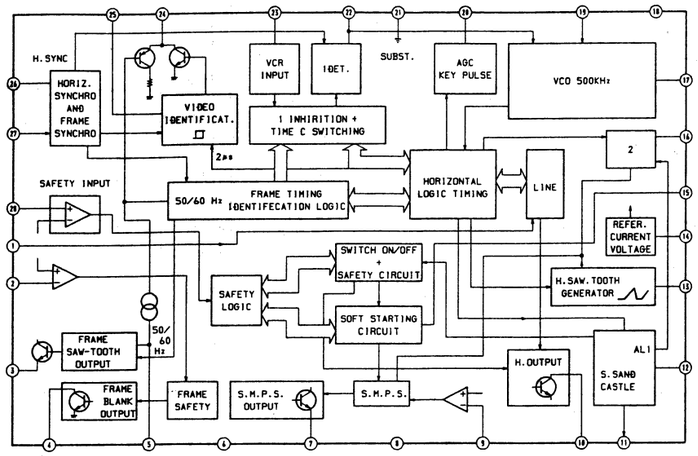
WAVEFORMS D BOARD

① 13 Vp-p (H)	② 2.8 Vp-p (H)	③ 4.5Vp-p (V)
④ 2.8 Vp-p (V)	⑤ 4 Vp-p (H)	⑥ 11 Vp-p (H)
⑦ 14 Vp-p (H)	⑧ 4 Vp-p (H)	⑨ 0.1Vp-p (503KHz)
⑩ 1.3Vp-p (H)	⑪ 3.2Vp-p (H)	⑫ 230 Vp-p (H)
⑬ 13 Vp-p (H)	⑭ 920Vp-p (H)	⑮ 1 Vp-p (H)
⑯ 10.5Vp-p (H)	⑰ 3.8Vp-p (V)	⑱ 6.3Vp-p (H)
⑲ 50Vp-p (V)	⑳ 160Vp-p (H)	㉑ 3.8Vp-p (V)
㉒ 3.2Vp-p (12MHz)	㉓ 7 Vp-p (V)	

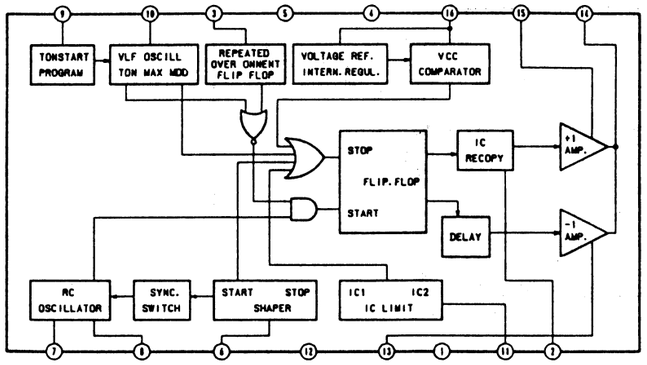




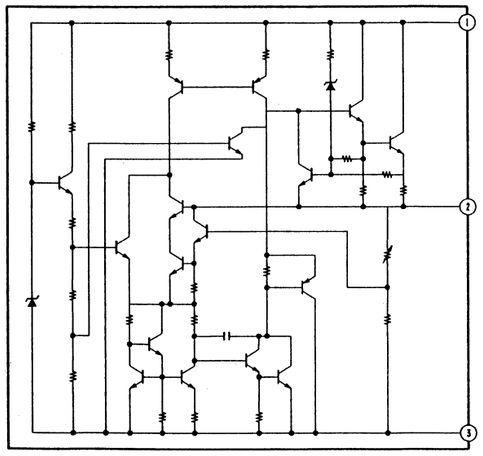
D BOARD IC501 TEA2028B



D BOARD IC601 TEA2260

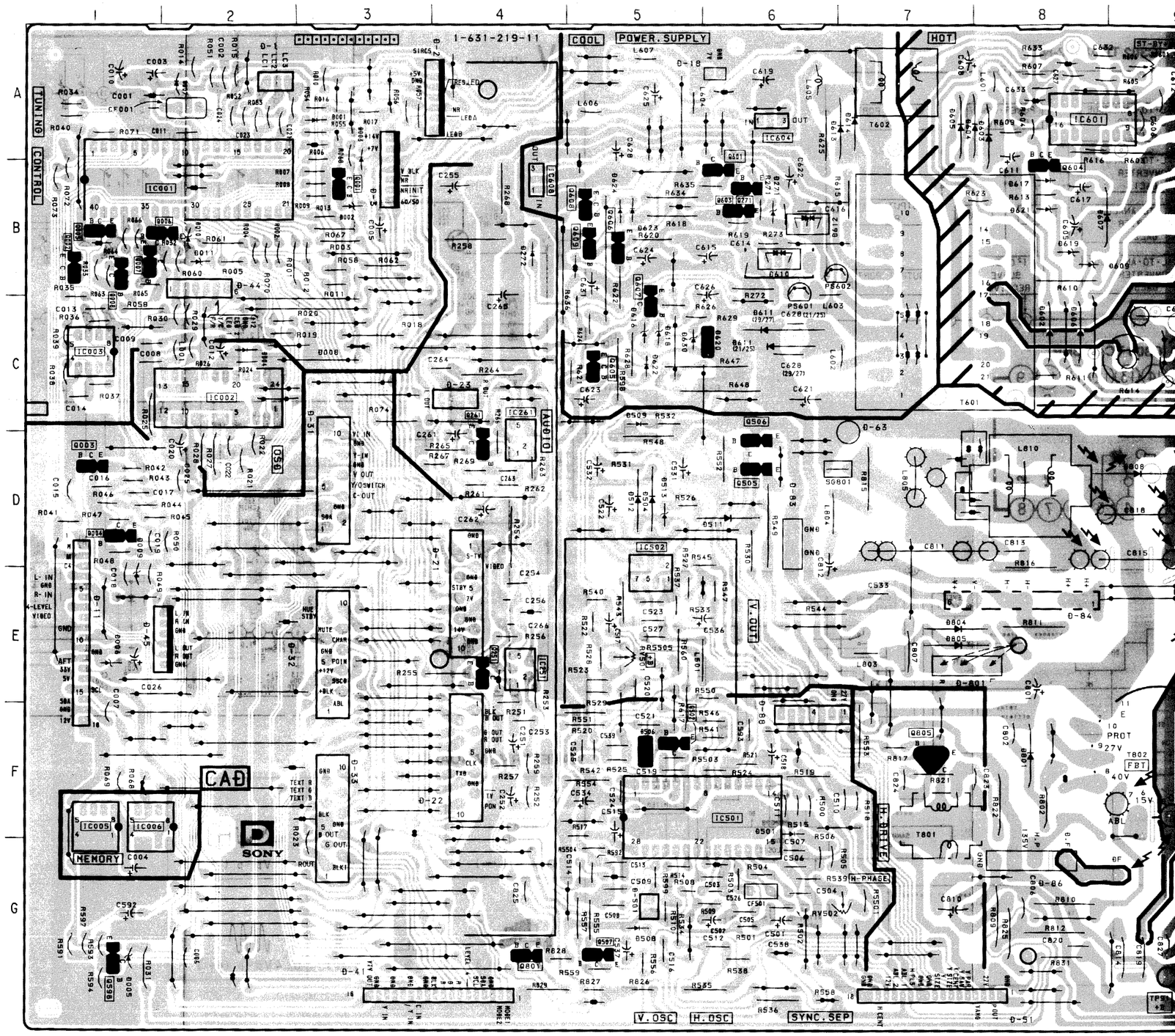


Y BOARD IC701 TA78009AP
Y BOARD IC702 TA78005AP

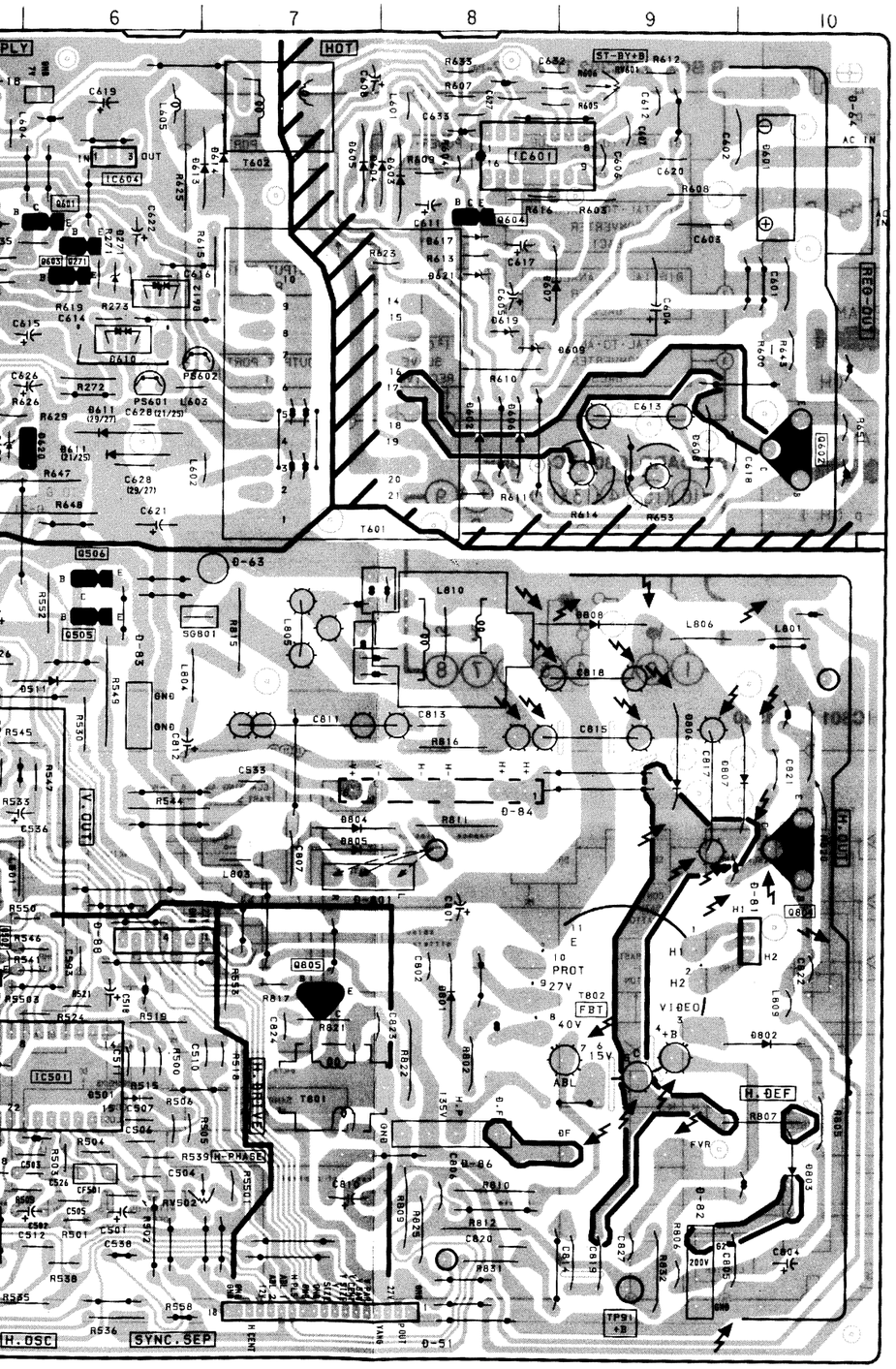


D (TUNING CONTROL, POWER CONTROL, AUDIO OUT, H/V OUT)

— D Board —



C (RGB OUT) Y (NOISE REDUCTION) VM (VM AMP)



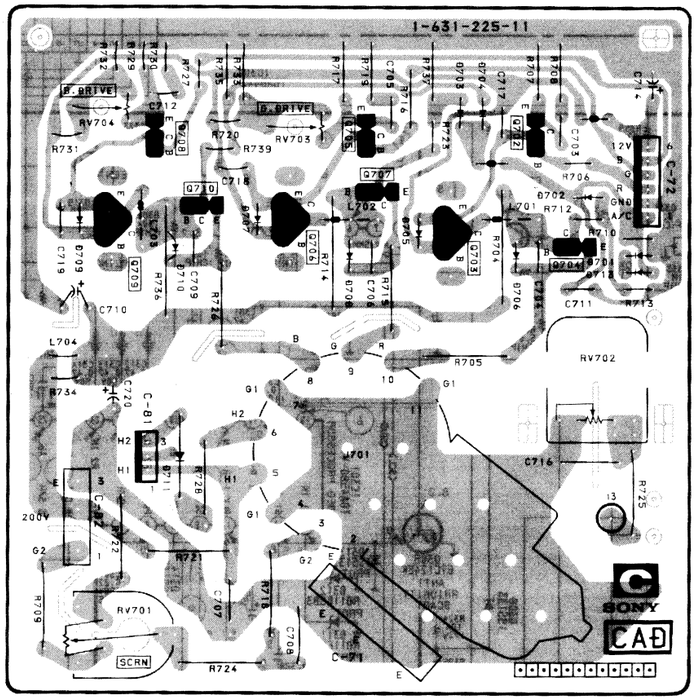
KV-E2911D RM-689

C (RGB OUT) **Y** (NOISE REDUCTION) **VM** (VM AMP)

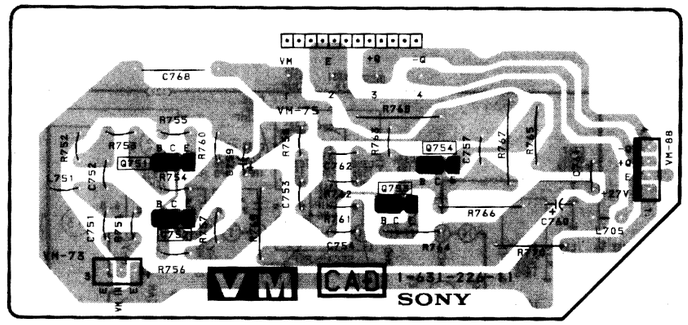
BOARD

IC		DIODE			
B-1	D001	A-3	D803	G-10	
C-2	D002	B-3	D804	E-7	
C-1	D003	A-3	D805	E-7	
F-1	D004	C-2	D806	D-9	
F-1	D005	G-1	D806	E-9	
E-4	D006	E-1	D807	D-9	
C-4	D007	A-2	D808	E-10	
F-6	D008	C-2			
D-6	D009	D-1	VARIABLE RESISTOR		
A-8	D010	B-2			
A-6	D011	B-2	RV501	E-5	
B-4	D271	B-6	RV502	G-6	
	D272	B-4	RV601	A-9	
	D501	F-6			
SISTOR	D504	D-5			
B-3	D506	F-5			
B-1	D508	G-5	TEST POINT		
D-1	D509	C-5			
D-1	D511	D-9	TP91	G-9	
B-1	D512	D-5			
B-1	D513	D-5			
B-1	D601	A-10			
B-1	D602	C-8			
	D603	A-8			
	D604	A-7			
E-4	D605	A-7			
C-4	D606	C-8			
B-6	D607	B-8			
F-5	D608	C-9			
D-6	D609	B-8			
C-6	D610	B-6			
G-5	D611	C-6			
A-6	D612	B-6			
C-10	D613	A-6			
B-6	D614	A-7			
B-7	D616	C-5			
C-5	D617	B-8			
B-5	D618	C-5			
B-5	D619	B-8			
B-5	D620	C-6			
B-5	D621	B-8			
G-1	D622	C-5			
G-4	D623	B-5			
E-10	D624	B-5			
F-7	D630	C-5			
	D801	F-8			
	D802	F10			

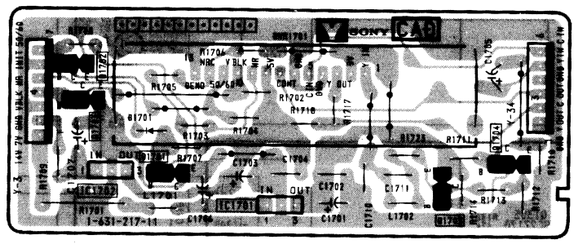
— C Board —



— VM Board —



—Y Board—



KV-E2911D
RM-689
KV-E2911D
RM-689

WAVEFORMS B BOARD

① 5.5Vp-p (H)	② 5.5Vp-p (H)
④ 1.3Vp-p (H)	⑤ 1 Vp-p (H)
⑦ 0.4Vp-p (H)	⑧ PAL NTSC 3.58 4.43 0.16Vp-p (H)
⑨ 10 Vp-p (H)	⑩ SECAM 1 Vp-p (H)
⑫ 1 Vp-p (H)	⑬ 1 Vp-p (H)

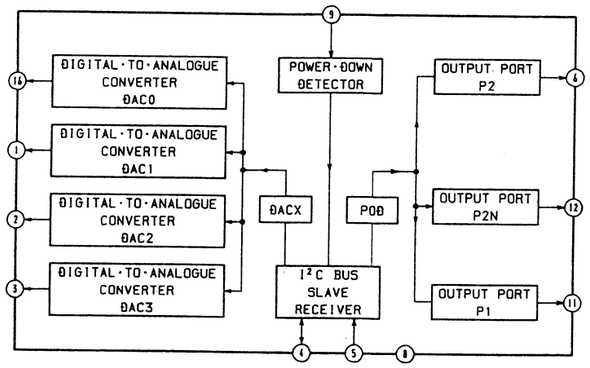
As to the voltage value shown by the mark ✱ on the Schematic Diagram, see the another list.

		PAL	SECAM	NTSC3.58	NTSC4.43
IC331	②	7.5	7.3	7.5	7.4
	④	7.5	7.2	7.5	7.4
	⑤	10	10	10	9.8
	⑥	10	10	10	9.9
	⑦	4.9	3.4	4.9	4.9
	⑧	3.7	3	3.8	3.8
	⑨	3.7	3	3.8	3.8
	⑩	5	3.4	4.9	4.9
Q331	(B)	0.1	0.1	0.1	5.8
	(C)	0.5	0.5	0.5	0
Q334	(B)	4.9	0.1	4.9	4.9
	(E)	4.3	4.6	4.3	4.3
Q335	(B)	0.1	5.3	0.1	0.1
	(E)	4.3	4.6	4.3	4.3

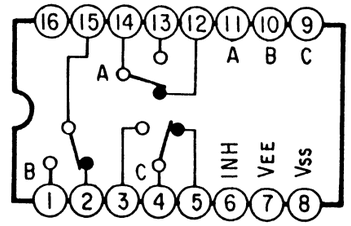
WAVEFORMS B BOARD

① 5.5Vp-p (H)	② 5.5Vp-p (H)	③ 5.5Vp-p (H)
④ 1.3Vp-p (H)	⑤ 1 Vp-p (H)	⑥ 0.4Vp-p (H)
⑦ 0.4Vp-p (H)	⑧ PAL NTSC 3.58 4.43 0.16Vp-p (H)	⑧ SECAM 0.1Vp-p (H)
⑨ 10 Vp-p (H)	⑩ SECAM 1 Vp-p (H)	⑪ SECAM 0.13Vp-p (H)
⑫ 1 Vp-p (H)	⑬ 1 Vp-p (H)	

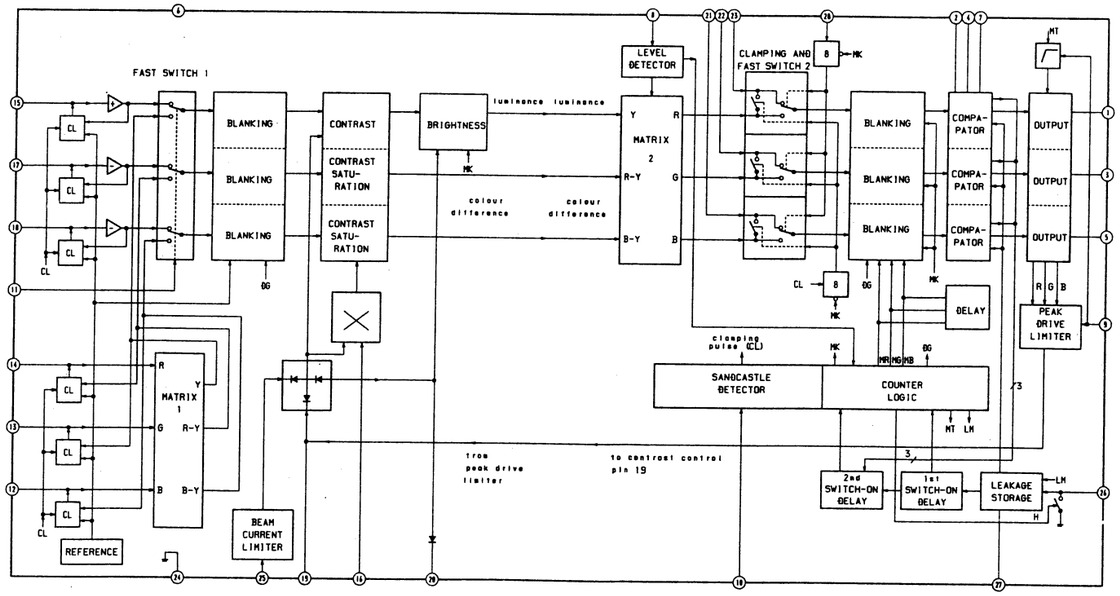
B BOARD IC302 TDA8442-N3



B BOARD IC303 TC4053BP

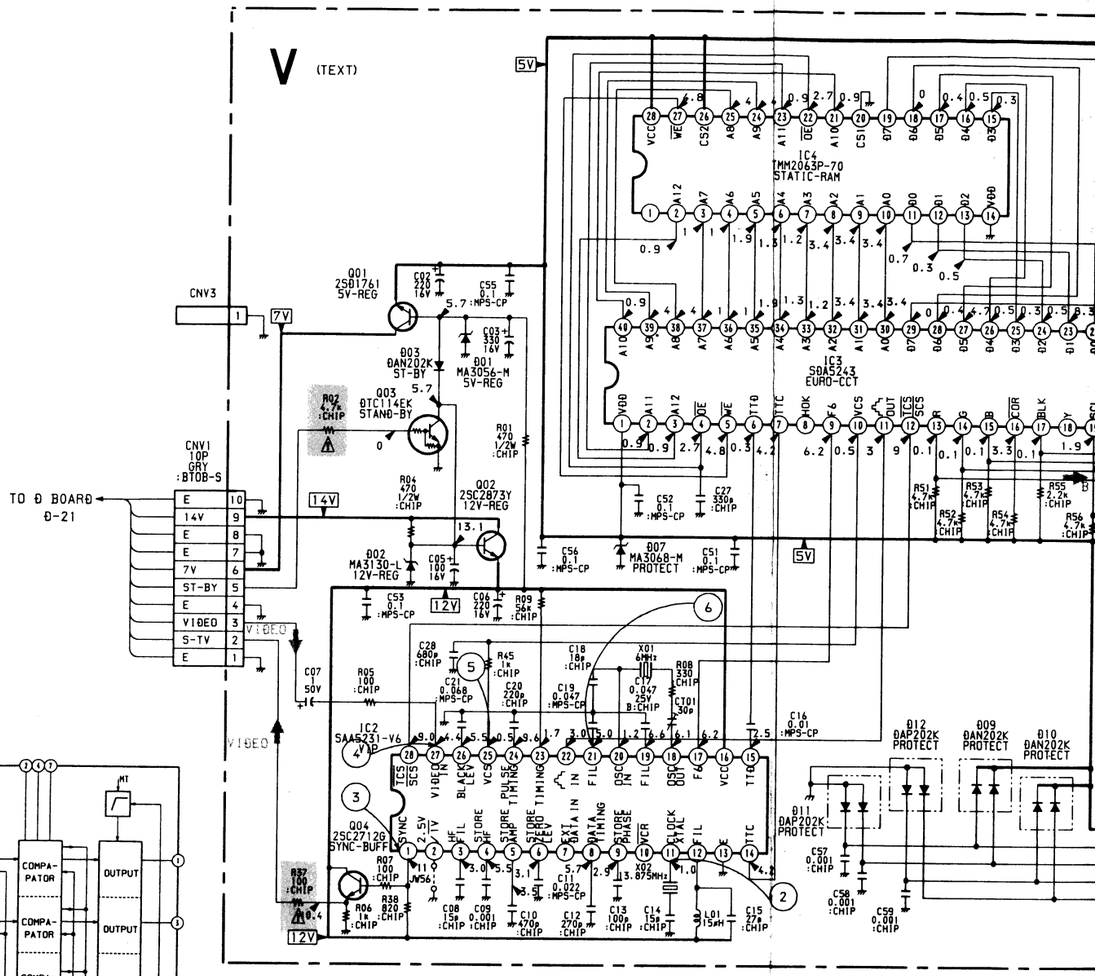


B BOARD IC301 TDA4580



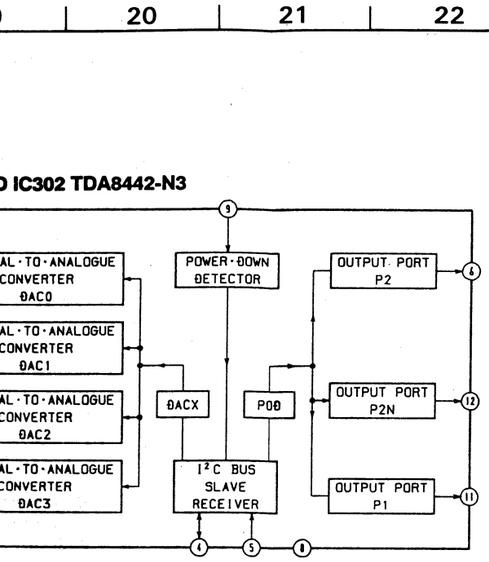
As to the voltage value shown by the mark ⓜ on the Schematic Diagram, see the another list.

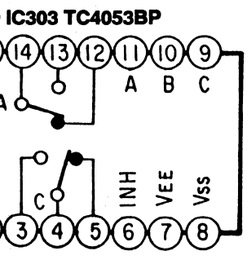
		PAL	SECAM	NTSC3.58	NTSC4.43
IC331	②	7.5	7.3	7.5	7.4
	④	7.5	7.2	7.5	7.4
	⑤	10	10	10	9.8
	⑥	10	10	10	9.9
	⑦	4.9	3.4	4.9	4.9
	⑧	3.7	3	3.8	3.8
	⑨	3.7	3	3.8	3.8
	⑩	5	3.4	4.9	4.9
Q331	(B)	0.1	0.1	0.1	5.8
	(C)	0.5	0.5	0.5	0
Q334	(B)	4.9	0.1	4.9	4.9
	(E)	4.3	4.6	4.3	4.3
Q335	(B)	0.1	5.3	0.1	0.1
	(E)	4.3	4.6	4.3	4.3

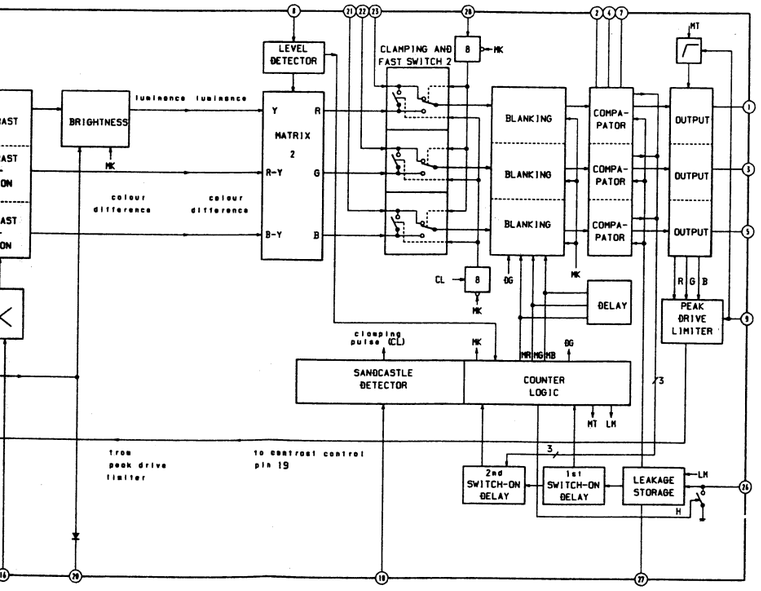


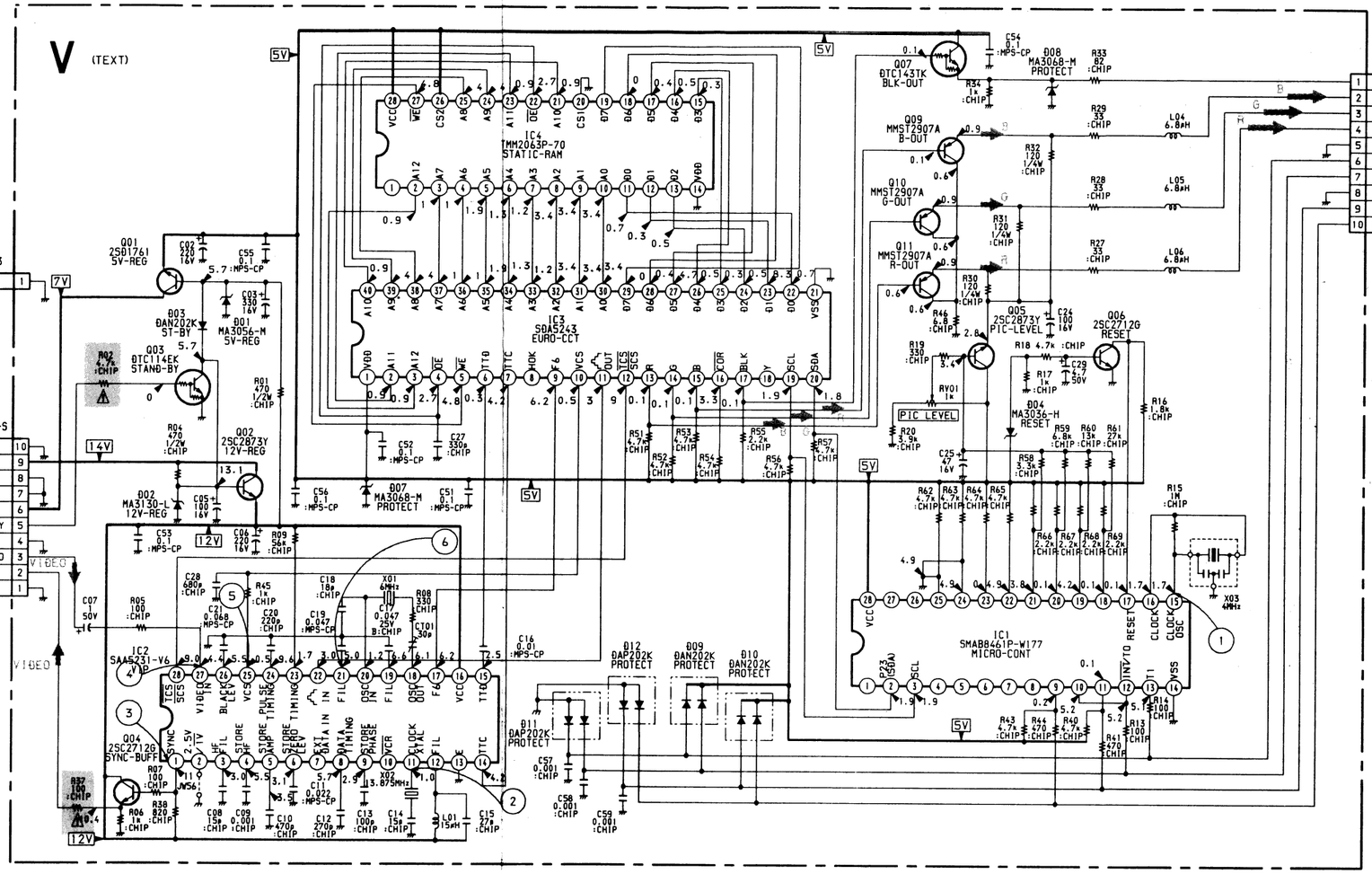
WAVEFORMS V BOARD

① 3.5Vp-p (4MHz)	② 0.56Vp-p (8.75MHz)	③ 1 Vp-p (H)
④ 1 Vp-p (H)	⑤ 2.9Vp-p (H)	⑥ 0.4Vp-p (6MHz)







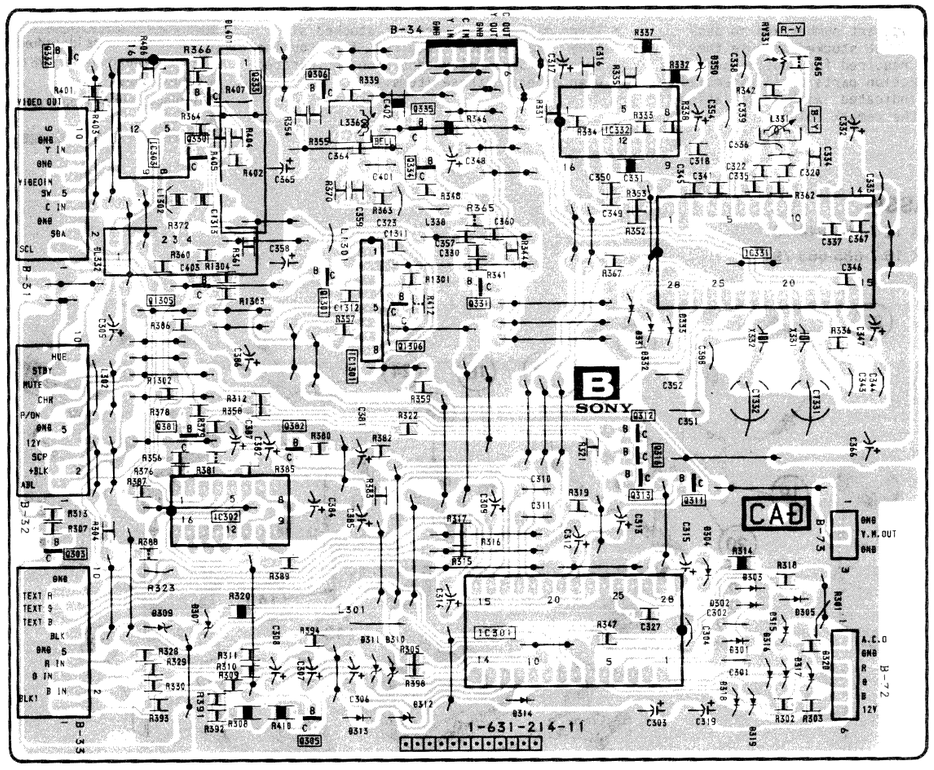


WAVEFORMS V BOARD

① 3.5Vp-p (4MHz)	② 0.56Vp-p (0.75MH)	③ 1 Vp-p (H)
④ 1 Vp-p (H)	⑤ 2.9Vp-p (H)	⑥ 0.4Vp-p (6MHz)

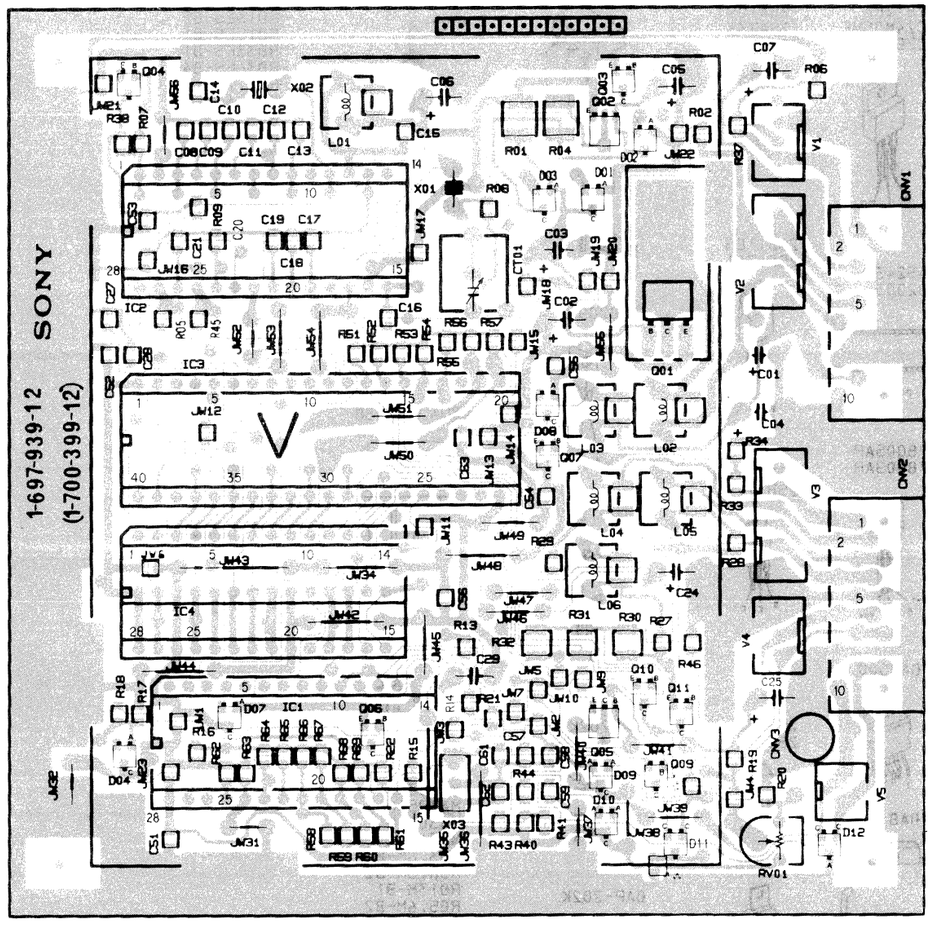
B (CHROMA DECODER)

— B Board —



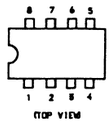
V (TEXT)

— V Board —

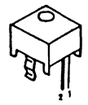


5-4. SEMICONDUCTORS

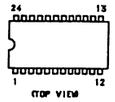
BA4558
RC4558P
SDA2546
TEA2014
TEA2031A



BX1387

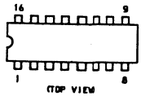


CXA1050A

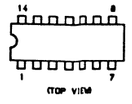


CXA1114P
TDA4580
TDA4650
TDA6200
TEA2028B
2AA5231-V6
SMAB8461P-W177
TMM2063P-70

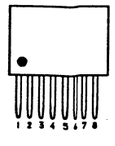
HD14040BP
HD14053BP
PCF8574P
TC4040BP
TC4053BP
TDA4660
TDA8442-N3
TEA2260



HD14584BP
μPD4584BC



HIC2110



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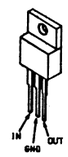
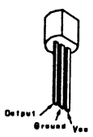
RC7812FA
μPC24M05HF
μPC7812H



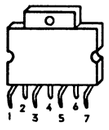
SDA5243
SAB2083

TA78005AP
TA78009AP



TDA2500

TDA8170

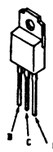


DTA144ES
DTC114ES
2SA1162

DTC124EK
MMST2907A
2SA1162G

JA101
JC501
2SA1091
2SA733
2SD789

2SB1185
2SD1761



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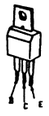
2SB1274

2SB734
2SD774

2SC1761

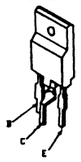


2SC2611
2SC2688

2SC2785

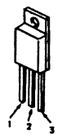
2SC2873Y
2SD1623

2SD1548-LB
2SD1941

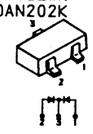


2SD2096

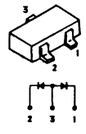
CTU-12S



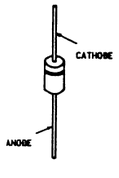
MA152WK
DAN202K



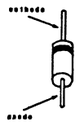
DAP-202K



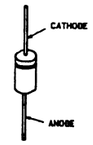
ERC06-15S
ERC25-06S
RU-3AM



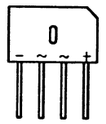
ERD29-08J



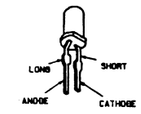
ES1F
GP08D
RGP10G



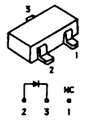
KBU4JL-6088



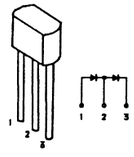
LD-210VR
SEL-1222R-C



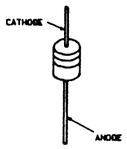
MA3036H
MA3056M
MA3068M
MA3130L
RD3.6M-B2
RD6.8M-B2
RD13M-B1
RD5.6M-B2



MC931



RD10ES-B3
RD11ES-B3
RD13ES-B2
RD15ES-B1
RD33ES-B1
RD36ES-B4
RD4.7ES-B2
RD5.6ES-B2
RD5.6ES-B3
RD6.2ES-B2
RD6.8ES-B3
RD7.5ES-B3
RD9.1ES-B2
RD9.1ES-B3
1SS119
1SS133



U05G

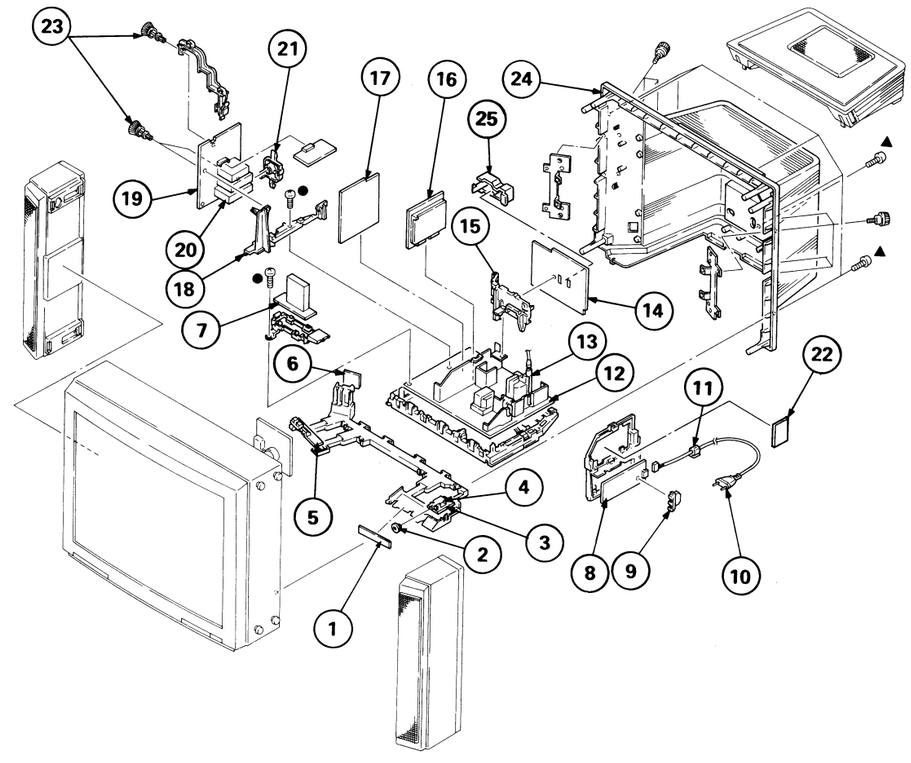
SECTION 6
EXPLODED VIEWS

NOTE:
- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

6-1. CHASSIS

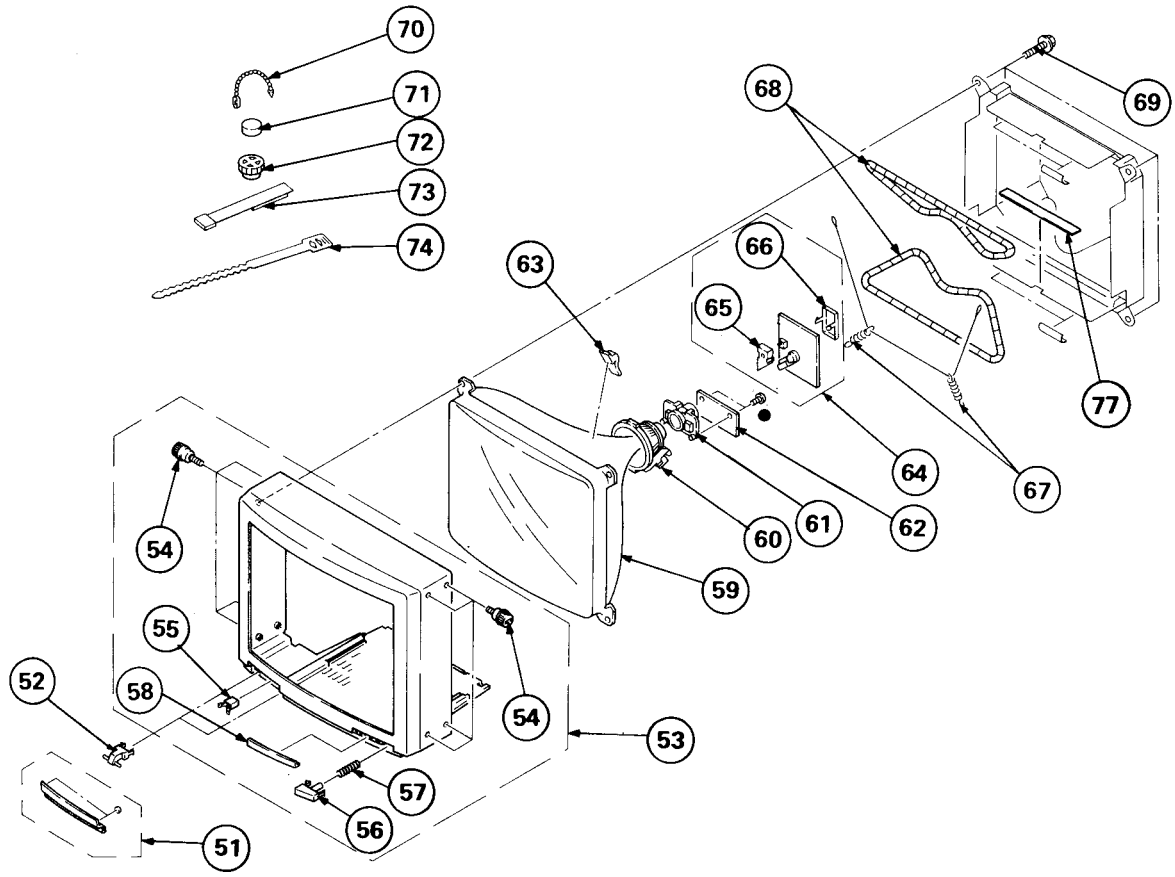
●: BVTP3 × 12 7-685-648-79
▲: BVTP4 × 16 7-685-663-79



REF.NO.	PART NO.	DESCRIPTION	REMARK
1	*1-631-221-11	H2 BOARD	
2	4-386-611-01	COVER, SWITCH	
3	*1-631-223-11	F2 BOARD	
4	⚠1-571-433-11	SWITCH, PUSH (AC POWER)	
5	*1-631-220-11	H1 BOARD	
6	*1-631-222-11	J2 BOARD	
7	*1-631-217-11	Y BOARD	
8	*1-631-216-11	F1 BOARD	
9	*4-386-620-02	COVER, POWER	
10	⚠1-559-346-12	CORD, POWER (WITH CONNECTOR)	
11	⚠4-389-201-02	HOLDER, AC CORD	
12	*A-1642-001 A	D BOARD, COMPLETE	
13	⚠1-439-416-11	TRANSFORMER ASSY, FLYBACK (UX-1600)	
14	*A-1651-001-A	J1 BOARD, COMPLETE	
15	*4-386-624-11	BRACKET, J	
16	*A-1347-031-A	V BOARD, COMPLETE	
17	*A-1621-001-A	B BOARD, COMPLETE	
18	*4-386-629-12	BRACKET, A	
19	*A-1632-001-A	A BOARD, COMPLETE	
20	⚠1-465-301-11	TUNER, ET (UV-816 (PLL))	
21	*4-386-617-01	HOLDER, TERMINAL	
22	*1-632-477-11	Z BOARD	
23	4-386-618-01	RIVET, T TYPE	
24	4-200-026-02	COVER, REAR	
25	4-200-014-01	BRACKET, TERMINAL	

6-2. PICTURE TUBE

● : BVTP3 × 12 7-685-648-79

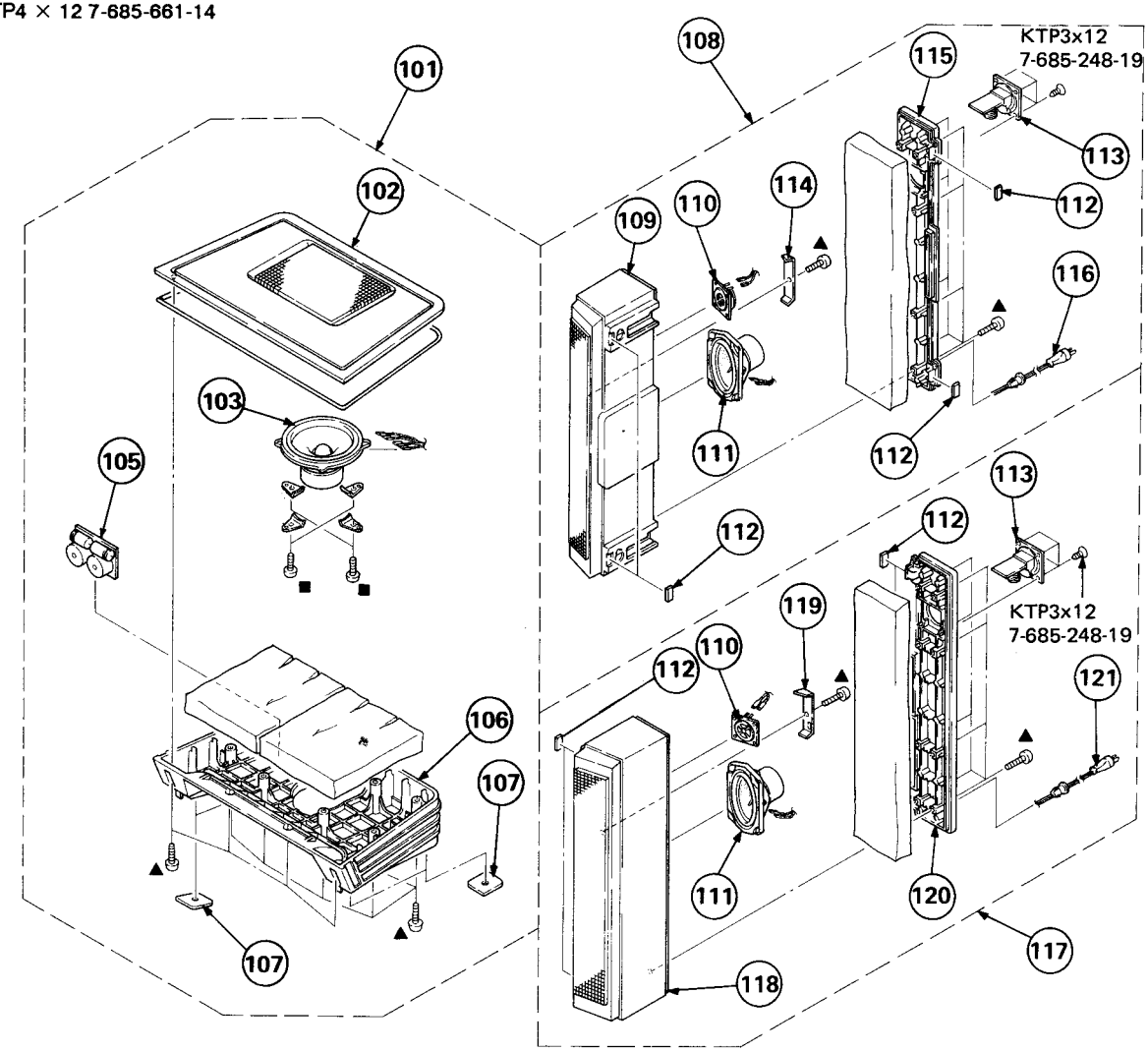


The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION	REMARK
51	X-4200-001-2	LID ASSY, CONTROL	
52	3-703-035-11	SHAFT, LID	
53	X-4200-008-1	BEZNET ASSY	54-58
54	X-4374-104-1	SCREW (B) ASSY, ORNAMENTAL	
55	4-386-710-01	CATCHER, PUSH	
56	4-200-013-01	BUTTON, POWER	
57	4-329-112-21	SPRING	
58	4-200-017-11	WINDOW, ORNAMENTAL	
59	⚠8-733-821-05	PICTURE TUBE (A68JYK10X)	
60	⚠1-451-313-22	DEFLECTION YOKE (Y29FXA)	
61	⚠1-452-509-42	NECK ASSY, PICTURE TUBE (NA-308)	
62	*1-631-226-11	VM BOARD	
63	3-703-961-01	SPACER, DY	
64	*A-1638-001-A	C BOARD, COMPLETE	65,66
65	*4-379-167-01	COVER (MAIN), CV	
66	*4-379-160-01	COVER (REAR LID), CV	
67	4-369-318-00	SPRING, TENSION	
68	⚠1-426-398-11	COIL, DEMAGNETIZATION	
69	4-373-263-01	SCREW (M), PT	
70	4-308-870-00	CLIP, LEAD WIRE	
71	1-452-032-00	MAGNET, DISK; 10MM ϕ	
72	1-452-094-00	MAGNET, ROTATABLE DISK; 15MM ϕ	
73	X-4387-214-1	PERMALLOY ASSY, CORRECTION	
74	3-701-007-00	BAND, BINDING	
77	4-389-291-01	CUSHION	

6-3. SPEAKER(L, R, WOOFER)

▲: BVTP4 × 16 7-685-663-79
■: BVTP4 × 12 7-685-661-14



REF.NO.	PART NO.	DESCRIPTION	REMARK
101	*A-1678-001-A	BOX ASSY, WOOFER	
102	X-4200-004-2	BOARD ASSY, BAFFLE	
103	1-544-192-11	SPEAKER	
105	1-236-549-11	NETWORK, DIVIDING	
106	4-200-027-01	BOX, WOOFER	
107	4-200-009-01	CUSHION, FOOT	
108	*A-1678-005-A	BOX ASSY (LEFT), SPEAKER	
109	X-4200-006-1	BOX ASSY (L), SIDE	
110	1-544-203-11	SPEAKER	
111	1-544-204-11	SPEAKER	

REF.NO.	PART NO.	DESCRIPTION	REMARK
112	4-200-006-01	CUSHION, FOOT	
113	1-236-510-21	NETWORK, DIVIDING	
114	*4-200-003-02	BRACKET (L), SPEAKER	
115	4-200-030-01	PANEL (L), REAR	
116	1-575-025-11	CORD, SPEAKER (WITH PLUG)	
117	*A-1678-003-A	BOX ASSY (RIGHT),SPEAKER	110-113,118-121
118	X-4200-005-1	BOX ASSY (R), SIDE	
119	*4-200-004-01	BRACKET (R), SPEAKER	
120	4-200-029-01	PANEL (R), REAR	
121	1-575-024-11	CORD, SPEAKER (WITH PLUG)	

102-107
109-116

SECTION 7
ELECTRICAL PARTS LIST

V

NOTE:

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

When indicating parts by reference number, please include the board name.

CAPACITORS
- MF : μF, PF : μμF

COILS
- MMH : mH, UH : μH

RESISTORS
- All resistors are in ohms
- F : nonflammable

REF.NO.	PART NO.	DESCRIPTION			REMARK
	*A-1347-031-A	V BOARD, COMPLETE **********			
	*4-380-698-01	CASE (MAIN), SHIELD, A1			
	*4-380-699-01	CASE (UPPER LID), SHIELD, A1			
	*4-382-701-01	CASE (BOTTOM LID), SHIELD, A2			
		<CAPACITOR>			
C02	1-124-120-11	ELECT 220MF	20%	16V	
C03	1-124-119-00	ELECT 330MF	20%	16V	
C05	1-126-101-11	ELECT 100MF	20%	16V	
C06	1-124-120-11	ELECT 220MF	20%	16V	
C07	1-124-499-11	ELECT 1MF	20%	50V	
C08	1-163-097-00	CERAMIC CHIP 15PF	5%	50V	
C09	1-163-141-00	CERAMIC CHIP 0.001MF	5%	50V	
C10	1-163-133-00	CERAMIC CHIP 470PF	5%	50V	
C11	1-163-037-11	CERAMIC CHIP 0.022MF	10%	25V	
C12	1-163-127-00	CERAMIC CHIP 270PF	5%	50V	
C13	1-163-117-00	CERAMIC CHIP 100PF	5%	50V	
C14	1-163-097-00	CERAMIC CHIP 15PF	5%	50V	
C15	1-163-103-00	CERAMIC CHIP 27PF	5%	50V	
C16	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	
C17	1-163-809-11	CERAMIC CHIP 0.047MF	10%	25V	
C18	1-163-099-00	CERAMIC CHIP 18PF	5%	50V	
C19	1-163-809-11	CERAMIC CHIP 0.047MF	10%	25V	
C20	1-163-125-00	CERAMIC CHIP 220PF	5%	50V	
C21	1-163-833-00	CERAMIC CHIP 0.068MF		25V	
C24	1-126-101-11	ELECT 100MF	20%	16V	
C25	1-124-477-11	ELECT 47MF	20%	16V	
C27	1-163-129-00	CERAMIC CHIP 330PF	5%	50V	
C28	1-163-137-00	CERAMIC CHIP 680PF	5%	50V	
C29	1-124-927-11	ELECT 4.7MF	20%	50V	
C51	1-163-038-00	CERAMIC CHIP 0.1MF		25V	
C52	1-163-038-00	CERAMIC CHIP 0.1MF		25V	
C53	1-163-038-00	CERAMIC CHIP 0.1MF		25V	
C54	1-163-038-00	CERAMIC CHIP 0.1MF		25V	
C55	1-163-038-00	CERAMIC CHIP 0.1MF		25V	
C56	1-163-038-00	CERAMIC CHIP 0.1MF		25V	
C57	1-163-141-00	CERAMIC CHIP 0.001MF	5%	50V	
C58	1-163-141-00	CERAMIC CHIP 0.001MF	5%	50V	
C59	1-163-141-00	CERAMIC CHIP 0.001MF	5%	50V	
		<CONNECTOR>			
CNV01	*1-565-393-11	CONNECTOR, BOARD TO BOARD			
CNV02	*1-565-393-11	CONNECTOR, BOARD TO BOARD			
CNV03	*1-508-784-00	PIN, CONNECTOR (5MM PITCH) 1P			
		<TRIMMER>			
CT01	1-141-392-11	CAP, VAR, TRIMMER (1 GANG)			

REF.NO.	PART NO.	DESCRIPTION	REMARK
		<DIODE>	
D01	8-719-105-91	DIODE RD5.6M-B2	
D02	8-719-106-79	DIODE RD13M-B1	
D03	8-719-400-18	DIODE MA152WK	
D04	8-719-105-52	DIODE RD3.6M-B2	
D07	8-719-106-17	DIODE RD6.8M-B2	
D08	8-719-106-17	DIODE RD6.8M-B2	
D09	8-719-400-18	DIODE MA152WK	
D10	8-719-400-18	DIODE MA152WK	
D11	8-719-914-44	DIODE DAP202K	
D12	8-719-914-44	DIODE DAP202K	
		<IC>	
IC1	8-759-986-92	IC SMAB8461P-W177	
IC2	8-759-972-96	IC SAA5231-V6	
IC3	8-759-032-98	IC SDA5243	
IC4	8-759-230-68	IC TMM2063P-70	
		<COIL>	
L01	1-408-411-00	INDUCTOR 15UH	
L04	1-408-407-00	INDUCTOR 6.8UH	
L05	1-408-407-00	INDUCTOR 6.8UH	
L06	1-408-407-00	INDUCTOR 6.8UH	
		<IC LINK>	
PS01	⚠1-532-679-91	LINK, IC	
PS02	⚠1-532-727-91	LINK, IC	
		<TRANSISTOR>	
Q3	8-729-900-53	TRANSISTOR DTC114EK	
Q01	8-729-808-76	TRANSISTOR 2SD1913SA	
Q02	8-729-807-50	TRANSISTOR 2SD1623-R	
Q04	8-729-271-22	TRANSISTOR 2SC2712-G	
Q05	8-729-807-50	TRANSISTOR 2SD1623-R	
Q06	8-729-271-22	TRANSISTOR 2SC2712-G	
Q07	8-729-900-98	TRANSISTOR DTC143TK	
Q09	8-729-807-87	TRANSISTOR 2SB1295-UL6	
Q10	8-729-807-87	TRANSISTOR 2SB1295-UL6	
Q11	8-729-807-87	TRANSISTOR 2SB1295-UL6	
		<RESISTOR>	
JW1	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JW2	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JW3	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JW4	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JW5	1-216-295-00	METAL GLAZE 0 5% 1/10W	

V B

REF.NO.	PART NO.	DESCRIPTION				REMARK
JW6	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JW7	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JW8	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JW9	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JW10	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JW11	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JW12	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JW13	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JW14	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JW15	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JW16	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JW17	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JW18	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JW19	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JW20	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JW21	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JW22	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JW23	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JW24	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JW25	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R01	1-218-326-11	METAL GLAZE	470	5%	1/2W	
R02	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R04	1-218-326-11	METAL GLAZE	470	5%	1/2W	
R05	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R06	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R07	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R08	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R09	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R13	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R14	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R15	1-216-121-00	METAL GLAZE	1M	5%	1/10W	
R16	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R17	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R18	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R19	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R20	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R27	1-216-013-00	METAL GLAZE	33	5%	1/10W	
R28	1-216-013-00	METAL GLAZE	33	5%	1/10W	
R29	1-216-013-00	METAL GLAZE	33	5%	1/10W	
R30	1-218-325-11	METAL GLAZE	120	5%	1/4W	
R31	1-218-325-11	METAL GLAZE	120	5%	1/4W	
R32	1-218-325-11	METAL GLAZE	120	5%	1/4W	
R33	1-216-023-00	METAL GLAZE	82	5%	1/10W	
R34	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R37	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R38	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R40	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R41	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R43	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R44	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R45	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R46	1-216-311-00	METAL GLAZE	6.8	5%	1/10W	
R51	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R52	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R53	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R54	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R55	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R56	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R57	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R58	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R59	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R60	1-216-076-00	METAL GLAZE	13K	5%	1/10W	
R61	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R62	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R63	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R64	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R65	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R66	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R67	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R68	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R69	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	

<VARIABLE RESISTOR>

RV01	1-238-012-11	RES, ADJ, CARBON 1K	

<CRYSTAL>

X01	1-567-162-21	OSCILLATOR, CRYSTAL	
X02	1-567-495-21	OSCILLATOR, CRYSTAL	
X03	1-577-082-11	VIBRATOR, CERAMIC	

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*A-1621-001-A B BOARD, COMPLETE
****

<CONNECTOR>

B31	*1-565-393-11	CONNECTOR, BOARD TO BOARD	
B32	*1-565-393-11	CONNECTOR, BOARD TO BOARD	
B33	*1-565-393-11	CONNECTOR, BOARD TO BOARD	
B34	*1-568-881-61	PIN, CONNECTOR 6P	
B72	*1-568-881-51	PIN, CONNECTOR 6P	
B73	*1-568-878-51	PIN, CONNECTOR 3P	

<CAPACITOR>

C301	1-106-228-00	MYLAR	0.22MF	10%	100V
C302	1-106-228-00	MYLAR	0.22MF	10%	100V
C303	1-124-122-11	ELECT	100MF	20%	50V
C304	1-106-228-00	MYLAR	0.22MF	10%	100V
C305	1-124-119-00	ELECT	330MF	20%	16V
C306	1-124-902-00	ELECT	0.47MF	20%	50V
C307	1-124-902-00	ELECT	0.47MF	20%	50V
C308	1-124-902-00	ELECT	0.47MF	20%	50V
C309	1-124-902-00	ELECT	0.47MF	20%	50V
C310	1-106-220-00	MYLAR	0.1MF	10%	100V
C311	1-106-220-00	MYLAR	0.1MF	10%	100V
C312	1-124-902-00	ELECT	0.47MF	20%	50V
C313	1-124-902-00	ELECT	0.47MF	20%	50V
C314	1-124-902-00	ELECT	0.47MF	20%	50V
C315	1-124-499-11	ELECT	1MF	20%	50V
C316	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C317	1-124-910-11	ELECT	47MF	20%	50V
C318	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C320	1-163-121-00	CERAMIC CHIP	150PF	5%	50V
C322	1-163-121-00	CERAMIC CHIP	150PF	5%	50V
C323	1-102-947-00	CERAMIC	10PF	0.5PF	50V
C327	1-164-232-11	CERAMIC CHIP	0.01MF		50V
C330	1-163-113-00	CERAMIC CHIP	68PF	5%	50V
C331	1-163-077-00	CERAMIC CHIP	0.1MF		50V
C332	1-126-103-11	ELECT	470MF	20%	16V
C333	1-106-375-12	MYLAR	0.022MF	10%	250V
C334	1-163-097-00	CERAMIC CHIP	15PF	5%	50V
C335	1-163-097-00	CERAMIC CHIP	15PF	5%	50V
C336	1-102-816-00	CERAMIC	120PF	5%	50V
C337	1-164-232-11	CERAMIC CHIP	0.01MF		50V

REF.NO.	PART NO.	DESCRIPTION			REMARK
C338	1-106-220-00	MYLAR	0.1MF	10%	100V
C339	1-106-220-00	MYLAR	0.1MF	10%	100V
C341	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C343	1-106-383-00	MYLAR	0.047MF	10%	100V
C344	1-130-783-00	MYLAR	0.33MF	10%	100V
C345	1-163-123-00	CERAMIC CHIP	180PF	5%	50V
C346	1-163-033-00	CERAMIC CHIP	0.022MF		50V
C347	1-124-499-11	ELECT	1MF	20%	50V
C348	1-124-499-11	ELECT	1MF	20%	50V
C349	1-164-232-11	CERAMIC CHIP	0.01MF		50V
C350	1-164-232-11	CERAMIC CHIP	0.01MF		50V
C351	1-106-375-12	MYLAR	0.022MF	10%	250V
C352	1-106-375-12	MYLAR	0.022MF	10%	250V
C354	1-124-910-11	ELECT	47MF	20%	50V
C357	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C358	1-124-917-11	ELECT	33MF	20%	50V
C359	1-163-103-00	CERAMIC CHIP	27PF	5%	50V
C360	1-164-232-11	CERAMIC CHIP	0.01MF		50V
C364	1-163-105-00	CERAMIC CHIP	33PF	5%	50V
C365	1-124-910-11	ELECT	47MF	20%	50V
C366	1-126-103-11	ELECT	470MF	20%	16V
C367	1-164-232-11	CERAMIC CHIP	0.01MF		50V
C381	1-124-902-00	ELECT	0.47MF	20%	50V
C382	1-124-927-11	ELECT	4.7MF	20%	50V
C384	1-124-910-11	ELECT	47MF	20%	50V
C385	1-124-927-11	ELECT	4.7MF	20%	50V
C386	1-124-927-11	ELECT	4.7MF	20%	50V
C387	1-124-499-11	ELECT	1MF	20%	50V
C388	1-106-220-00	MYLAR	0.1MF	10%	100V
C401	1-101-361-00	CERAMIC	150PF	5%	50V
C402	1-163-197-00	CERAMIC CHIP	470PF	5%	50V
C403	1-164-232-11	CERAMIC CHIP	0.01MF		50V
C1311	1-163-105-00	CERAMIC CHIP	33PF	5%	50V
C1312	1-163-101-00	CERAMIC CHIP	22PF	5%	50V
C1313	1-102-953-00	CERAMIC	18PF	5%	50V

<TRIMMER>

CT331	1-141-181-11	CAP,TRIMMER
CT332	1-141-181-11	CAP,TRIMMER

<DIODE>

D301	8-719-911-19	DIODE 1SS119
D302	8-719-911-19	DIODE 1SS119
D303	8-719-911-19	DIODE 1SS119
D304	8-719-911-19	DIODE 1SS119
D305	8-719-911-19	DIODE 1SS119
D307	8-719-110-23	DIODE RD11ES-B3
D308	8-719-911-19	DIODE 1SS119
D309	8-719-911-19	DIODE 1SS119
D310	8-719-110-23	DIODE RD11ES-B3
D311	8-719-110-23	DIODE RD11ES-B3
D312	8-719-110-23	DIODE RD11ES-B3
D313	8-719-911-19	DIODE 1SS119
D314	8-719-911-19	DIODE 1SS119
D315	8-719-911-19	DIODE 1SS119
D316	8-719-911-19	DIODE 1SS119
D317	8-719-911-19	DIODE 1SS119
D318	8-719-911-19	DIODE 1SS119
D319	8-719-911-19	DIODE 1SS119
D320	8-719-911-19	DIODE 1SS119
D331	8-719-911-19	DIODE 1SS119
D332	8-719-911-19	DIODE 1SS119
D333	8-719-911-19	DIODE 1SS119
D350	8-719-109-90	DIODE RD5.6ES-B3

<DELAY LINE>

DL332	1-236-062-11	MODULE, Y DELAY LINE
DL401	1-415-613-11	DELAY LINE, Y

<IC>

IC301	8-759-979-85	IC TDA4580-V4
IC302	8-759-980-60	IC TDA8442-N3
IC303	8-759-240-53	IC TC4053BP
IC331	8-759-990-29	IC TDA4650
IC332	8-759-990-30	IC TDA4660
IC1301	1-235-534-11	CONTROL MODULE, PICTURE

<COIL>

L301	1-410-868-21	INDUCTOR	4.7UH
L302	1-410-868-21	INDUCTOR	4.7UH
L331	1-404-554-11	COIL	
L336	1-404-554-11	COIL	
L338	1-408-409-00	INDUCTOR	10UH
L1301	1-408-425-00	INDUCTOR	220UH
L1302	1-408-419-00	INDUCTOR	68UH

<TRANSISTOR>

Q303	8-729-271-22	TRANSISTOR 2SC2712-G
Q305	8-729-901-00	TRANSISTOR DTC124EK
Q306	8-729-271-22	TRANSISTOR 2SC2712-G
Q311	8-729-271-22	TRANSISTOR 2SC2712-G
Q312	8-729-271-22	TRANSISTOR 2SC2712-G
Q313	8-729-271-22	TRANSISTOR 2SC2712-G
Q316	8-729-271-22	TRANSISTOR 2SC2712-G
Q330	8-729-216-22	TRANSISTOR 2SA1162
Q331	8-729-901-00	TRANSISTOR DTC124EK
Q332	8-729-216-22	TRANSISTOR 2SA1162
Q333	8-729-216-22	TRANSISTOR 2SA1162
Q334	8-729-271-22	TRANSISTOR 2SC2712-G
Q335	8-729-271-22	TRANSISTOR 2SC2712-G
Q336	8-729-900-36	TRANSISTOR DTC124ES
Q381	8-729-901-00	TRANSISTOR DTC124EK
Q382	8-729-271-22	TRANSISTOR 2SC2712-G
Q1301	8-729-901-00	TRANSISTOR DTC124EK
Q1305	8-729-271-22	TRANSISTOR 2SC2712-G
Q1306	8-729-271-22	TRANSISTOR 2SC2712-G

<RESISTOR>

R301	1-216-033-00	METAL GLAZE	220	5%	1/10W
R302	1-216-033-00	METAL GLAZE	220	5%	1/10W
R303	1-216-033-00	METAL GLAZE	220	5%	1/10W
R304	1-216-033-00	METAL GLAZE	220	5%	1/10W
R305	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R307	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R308	1-216-184-00	METAL GLAZE	270	5%	1/8W
R309	1-216-025-00	METAL GLAZE	100	5%	1/10W
R310	1-216-025-00	METAL GLAZE	100	5%	1/10W
R311	1-216-025-00	METAL GLAZE	100	5%	1/10W
R312	1-216-033-00	METAL GLAZE	220	5%	1/10W
R313	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R314	1-216-182-00	METAL GLAZE	220	5%	1/8W
R315	1-216-029-00	METAL GLAZE	150	5%	1/10W

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

B F1

REF.NO.	PART NO.	DESCRIPTION				REMARK
R316	1-216-029-00	METAL GLAZE	150	5%	1/10W	
R317	1-216-029-00	METAL GLAZE	150	5%	1/10W	
R318	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R319	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R320	1-216-198-00	METAL GLAZE	1K	5%	1/8W	
R321	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R322	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R323	1-249-421-11	CARBON	2.2K	5%	1/4W	
R324	1-249-429-11	CARBON	10K	5%	1/4W	
R325	1-249-429-11	CARBON	10K	5%	1/4W	
R328	1-216-009-00	METAL GLAZE	22	5%	1/10W	
R329	1-216-009-00	METAL GLAZE	22	5%	1/10W	
R330	1-216-009-00	METAL GLAZE	22	5%	1/10W	
R331	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R332	1-216-184-00	METAL GLAZE	270	5%	1/8W	
R333	1-216-121-00	METAL GLAZE	1M	5%	1/10W	
R334	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R335	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R336	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R337	1-216-184-00	METAL GLAZE	270	5%	1/8W	
R338	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R339	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R340	1-247-903-00	CARBON	1M	5%	1/4W	
R341	1-216-031-00	METAL GLAZE	180	5%	1/10W	
R342	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R344	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R346	1-216-202-00	METAL GLAZE	1.5K	5%	1/8W	
R347	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R348	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R354	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R355	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R356	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R357	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R358	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R359	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R360	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R361	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R362	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R363	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R364	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R365	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R366	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R367	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R370	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R372	1-216-023-00	METAL GLAZE	82	5%	1/10W	
R376	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R378	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R379	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R380	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R381	1-216-093-00	METAL GLAZE	68K	5%	1/10W	
R382	1-216-103-00	METAL GLAZE	180K	5%	1/10W	
R383	1-216-115-00	METAL GLAZE	560K	5%	1/10W	
R385	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R386	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R387	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R388	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R389	1-216-101-00	METAL GLAZE	150K	5%	1/10W	
R391	1-216-023-00	METAL GLAZE	82	5%	1/10W	
R392	1-216-019-00	METAL GLAZE	56	5%	1/10W	
R393	1-216-019-00	METAL GLAZE	56	5%	1/10W	
R394	1-216-019-00	METAL GLAZE	56	5%	1/10W	
R398	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R401	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R402	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W	
R403	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R404	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R405	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R406	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R407	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R410	1-216-184-00	METAL GLAZE	270	5%	1/8W	
R412	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R1301	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1302	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R1303	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R1304	1-216-097-00	METAL GLAZE	100K	5%	1/10W	

<VARIABLE RESISTOR>

RV331	1-238-012-11	RES, ADJ, CARBON 1K	

<CRYSTAL>

X331	1-567-307-11	OSCILLATOR, CRYSTAL	
X332	1-567-131-00	OSCILLATOR, CRYSTAL	

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*1-631-216-11 F1 BOARD
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<CAPACITOR>

C1601⚠	1-136-518-11	FILM	0.33MF	20%	300V
C1602⚠	1-136-519-11	FILM	0.47MF	20%	300V
C1603⚠	1-162-578-51	CERAMIC	0.0047MF	20%	400V
C1604⚠	1-162-578-51	CERAMIC	0.0047MF	20%	400V
C1605⚠	1-162-578-51	CERAMIC	0.0047MF	20%	400V
C1606⚠	1-162-578-51	CERAMIC	0.0047MF	20%	400V
C1607⚠	1-161-964-61	CERAMIC	0.0047MF		250V

<FUSE>

F1601⚠	1-532-350-11	FUSE, TIME-LAG 4A/250V
	1-533-087-00	HOLDER, FUSE; F1601

<CONNECTOR>

F1-61	*1-566-664-11	PIN, CONNECTOR 4P
F1-62	*1-568-106-11	PIN, CONNECTOR 7P
F1-64	*1-565-395-11	PIN, CONNECTOR 3P
F1-65	*1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P
F1-66	*1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P
F1-67	*1-568-878-51	PIN, CONNECTOR 3P

<TRANSFORMER>

LF1601⚠	1-421-866-12	LFT
LF1602⚠	1-421-776-11	LFT
LF1603⚠	1-421-592-11	TRANSFORMER, FERRITE

<RESISTOR>

R1601⚠	1-246-513-75	CARBON	47K	5%	1/4W	
R1602⚠	1-244-945-91	CARBON	1M	5%	1/2W	
R1603⚠	1-217-328-11	WIREWOUND	2.7	10%	7W	F
R1604⚠	1-246-513-75	CARBON	47K	5%	1/4W	
R1605⚠	1-218-265-91	METAL GLAZE	8.2M	5%	1W	

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

F1 F2 A C

REF.NO.	PART NO.	DESCRIPTION				REMARK
		<THERMISTOR>				
THP601	⚠1-808-059-31	THERMISTOR, POSITIVE				
**********						
	*1-631-223-11	F2 BOARD				
		********				
		<CONNECTOR>				
F2-62	*1-566-664-11	PIN, CONNECTOR 4P				
		<SWITCH>				
S1701	⚠1-571-433-11	SWITCH, PUSH (AC POWER)				
**********						
	*A-1632-001-A	A BOARD, COMPLETE				
		**********				
		<CONNECTOR>				
A11	*1-566-659-11	CONNECTOR, HINGE (SOCKET) 18P				
A13	*1-565-503-11	CONNECTOR, BOARD TO BOARD 12P				
A14	*1-564-880-31	PLUG, CONNECTOR 3P				
A16	*1-560-290-00	PLUG, CONNECTOR (2.5MM PITCH)				
A19	*1-564-881-11	PLUG, CONNECTOR 4P				
A17	*1-564-886-11	PLUG, CONNECTOR 9P				
		<CAPACITOR>				
C101	1-126-233-11	ELECT	22MF	20%	50V	
C102	1-126-103-11	ELECT	470MF	20%	16V	
C104	1-124-910-11	ELECT	47MF	20%	50V	
C106	1-126-233-11	ELECT	22MF	20%	50V	
C108	1-136-165-00	FILM	0.1MF	5%	50V	
C109	1-102-824-00	CERAMIC	470PF	5%	50V	
C111	1-124-925-11	ELECT	2.2MF	20%	50V	
C115	1-124-925-11	ELECT	2.2MF	20%	50V	
C127	1-124-122-11	ELECT	100MF	20%	50V	
C128	1-124-910-11	ELECT	47MF	20%	50V	
C129	1-124-910-11	ELECT	47MF	20%	50V	
C138	1-136-165-00	FILM	0.1MF	5%	50V	
C171	1-102-114-00	CERAMIC	470PF	10%	50V	
C172	1-102-114-00	CERAMIC	470PF	10%	50V	
C177	1-102-074-00	CERAMIC	0.001MF	10%	50V	
C181	1-101-004-00	CERAMIC	0.01MF		50V	
		<IC>				
IC103	8-759-979-62	IC PCF8574				
		<COIL>				
L100	1-410-116-11	INDUCTOR	0.56MMH			
L101	1-408-225-00	INDUCTOR	3.3UH			
L102	1-408-413-00	INDUCTOR	22UH			
L107	1-408-397-00	INDUCTOR	1UH			
		<TRANSISTOR>				
Q113	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q114	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q115	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q116	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q125	8-729-900-89	TRANSISTOR DTC144ES				
Q126	8-729-900-65	TRANSISTOR DTA144ES				
Q181	8-729-119-78	TRANSISTOR 2SC2785-HFE				
		<RESISTOR>				
R101	1-249-405-11	CARBON	100	5%	1/4W	
R105	1-249-432-11	CARBON	18K	5%	1/4W	
R107	1-249-433-11	CARBON	22K	5%	1/4W	
R108	1-249-432-11	CARBON	18K	5%	1/4W	
R110	1-249-429-11	CARBON	10K	5%	1/4W	
R111	1-249-423-11	CARBON	3.3K	5%	1/4W	
R116	1-249-407-11	CARBON	150	5%	1/4W	
R118	1-249-435-11	CARBON	33K	5%	1/4W	
R128	1-249-406-11	CARBON	120	5%	1/4W	
R129	1-249-421-11	CARBON	2.2K	5%	1/4W	
R130	1-249-421-11	CARBON	2.2K	5%	1/4W	
R157	1-249-417-11	CARBON	1K	5%	1/4W	
R158	1-249-409-11	CARBON	220	5%	1/4W	
R159	1-249-409-11	CARBON	220	5%	1/4W	
R161	1-249-437-11	CARBON	47K	5%	1/4W	
R162	1-249-440-11	CARBON	82K	5%	1/4W	
R163	1-249-440-11	CARBON	82K	5%	1/4W	
R164	1-249-430-11	CARBON	12K	5%	1/4W	
R165	1-249-430-11	CARBON	12K	5%	1/4W	
R167	1-249-422-11	CARBON	2.7K	5%	1/4W	
R168	1-249-437-11	CARBON	47K	5%	1/4W	
R169	1-249-422-11	CARBON	2.7K	5%	1/4W	
R181	1-249-417-11	CARBON	1K	5%	1/4W	
R182	1-249-425-11	CARBON	4.7K	5%	1/4W	
R193	1-249-429-11	CARBON	10K	5%	1/4W	
R194	1-249-401-11	CARBON	47	5%	1/4W	
R195	1-249-401-11	CARBON	47	5%	1/4W	
		<IF BLOCK>				
SIF102	1-464-964-11	IF BLOCK (IFG-5.5S)				
VIF101	1-466-154-11	IF BLOCK (IFG-389S)				
		<TUNER>				
TU101	⚠1-465-301-11	TUNER, ET (UV-816(PLL))				
**********						
	*A-1638-001-A	C BOARD, COMPLETE				
		**********				
	*4-379-160-01	COVER (REAR LID), CV				
	*4-379-167-01	COVER (MAIN), CV				
	*4-386-664-01	SPRING				
		<CONNECTOR>				
C71	*1-506-371-00	PIN, CONNECTOR 2P				
C72	*1-568-881-51	PIN, CONNECTOR 6P				
C81	*1-568-878-61	PIN, CONNECTOR 3P				
C82	*1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P				
		<CAPACITOR>				
C703	1-102-980-00	CERAMIC	270PF	5%	50V	
C704	1-102-116-00	CERAMIC	680PF	10%	50V	
C705	1-102-978-00	CERAMIC	220PF	5%	50V	
C706	1-102-116-00	CERAMIC	680PF	10%	50V	

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The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION				REMARK
C707	1-162-116-00	CERAMIC	680PF	10%	2KV	
C708	1-162-114-00	CERAMIC	0.0047MF		2KV	
C709	1-102-116-00	CERAMIC	680PF	10%	50V	
C710	1-123-947-00	ELECT	10MF	20%	250V	
C711	1-101-880-00	CERAMIC	47PF	5%	50V	
C712	1-102-980-00	CERAMIC	270PF	5%	50V	
C714	1-124-360-00	ELECT	1000MF	20%	16V	
C716	1-162-622-11	CERAMIC	330PF	10%	400V	
C717	1-102-114-00	CERAMIC	470PF	10%	50V	
C718	1-102-114-00	CERAMIC	470PF	10%	50V	
C719	1-102-114-00	CERAMIC	470PF	10%	50V	
		<DIODE>				
D701	8-719-110-14	DIODE RD9.1ES-B3				
D702	8-719-911-19	DIODE 1SS119				
D703	8-719-911-19	DIODE 1SS119				
D704	8-719-911-19	DIODE 1SS119				
D705	8-719-911-19	DIODE 1SS119				
D706	8-719-911-19	DIODE 1SS119				
D707	8-719-911-19	DIODE 1SS119				
D708	8-719-911-19	DIODE 1SS119				
D709	8-719-911-19	DIODE 1SS119				
D710	8-719-911-19	DIODE 1SS119				
D711	8-719-300-33	DIODE RU-3AM				
D713	8-719-911-19	DIODE 1SS119				
		<JACK>				
J701	1-526-798-51	SOCKET, PICTURE TUBE				
		<COIL>				
L704	1-410-878-21	INDUCTOR	33UH			
		<TRANSISTOR>				
Q702	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q703	8-729-326-11	TRANSISTOR 2SC2611				
Q704	8-729-200-17	TRANSISTOR 2SA1091				
Q705	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q706	8-729-326-11	TRANSISTOR 2SC2611				
Q707	8-729-200-17	TRANSISTOR 2SA1091				
Q708	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q709	8-729-326-11	TRANSISTOR 2SC2611				
Q710	8-729-200-17	TRANSISTOR 2SA1091				
		<RESISTOR>				
R704	1-216-486-00	METAL OXIDE	8.2K	5%	3W	F
R705	1-202-824-00	SOLID	3.3K	10%	1/2W	
R706	1-249-409-11	CARBON	220	5%	1/4W	
R707	1-249-412-11	CARBON	390	5%	1/4W	
R708	1-249-401-11	CARBON	47	5%	1/4W	
R709	1-202-844-00	SOLID	330K	10%	1/2W	
R710	1-215-465-00	METAL	68K	1%	1/6W	
R712	1-249-417-11	CARBON	1K	5%	1/4W	
R713	1-215-471-00	METAL	120K	1%	1/6W	
R714	1-216-486-00	METAL OXIDE	8.2K	5%	3W	F
R715	1-202-824-00	SOLID	3.3K	10%	1/2W	
R716	1-249-409-11	CARBON	220	5%	1/4W	
R717	1-249-415-11	CARBON	680	5%	1/4W	
R718	1-202-814-11	SOLID	33K	10%	1/2W	
R719	1-249-401-11	CARBON	47	5%	1/4W	
R720	1-249-423-11	CARBON	3.3K	5%	1/4W	
R721	1-202-842-11	SOLID	220K	10%	1/2W	
R722	1-202-848-00	SOLID	680K	10%	1/2W	
R723	1-249-417-11	CARBON	1K	5%	1/4W	
R724	1-202-846-00	SOLID	470K	10%	1/2W	
R725	1-202-838-00	SOLID	100K	10%	1/2W	
R726	1-202-824-00	SOLID	3.3K	10%	1/2W	
R727	1-249-409-11	CARBON	220	5%	1/4W	
R728	1-216-342-11	METAL OXIDE	0.27	5%	1W	F
R729	1-249-416-11	CARBON	820	5%	1/4W	
R730	1-249-401-11	CARBON	47	5%	1/4W	
R731	1-249-423-11	CARBON	3.3K	5%	1/4W	
R732	1-249-415-11	CARBON	680	5%	1/4W	
R733	1-249-415-11	CARBON	680	5%	1/4W	
R734	1-249-405-11	CARBON	100	5%	1/4W	
R735	1-215-493-00	METAL	1M	1%	1/6W	
R736	1-216-486-00	METAL OXIDE	8.2K	5%	3W	F
R737	1-215-485-00	METAL	470K	1%	1/6W	
R739	1-249-417-11	CARBON	1K	5%	1/4W	
		<VARIABLE RESISTOR>				
RV701	1-230-641-11	RES, ADJ, METAL GLAZE 2.2M				
RV702⚠	1-230-619-11	RES, ADJ, METAL GLAZE 110M				
RV703	1-237-749-11	RES, ADJ, CARBON 2200				
RV704	1-237-749-11	RES, ADJ, CARBON 2200				
**********						
*A	1642-001-A	D BOARD, COMPLETE				
		**********				
4	200-001-01	HOLDER, IC				
*4	341-751-01	EYELET				
*4	341-752-01	EYELET				
*4	368-683-01	SPRING				
		<CAPACITOR>				
C002	1-102-074-00	CERAMIC	0.001MF	10%	50V	
C003	1-123-875-11	ELECT	10MF	20%	50V	
C004	1-124-120-11	ELECT	220MF	20%	16V	
C005	1-124-499-11	ELECT	1MF	20%	50V	
C006	1-102-978-00	CERAMIC	220PF	5%	50V	
C007	1-102-978-00	CERAMIC	220PF	5%	50V	
C008	1-101-880-00	CERAMIC	47PF	5%	50V	
C009	1-101-880-00	CERAMIC	47PF	5%	50V	
C010	1-124-120-11	ELECT	220MF	20%	16V	
C011	1-101-004-00	CERAMIC	0.01MF		50V	
C012	1-123-875-11	ELECT	10MF	20%	50V	
C013	1-106-220-00	MYLAR	0.1MF	10%	100V	
C014	1-106-220-00	MYLAR	0.1MF	10%	100V	
C015	1-124-902-00	ELECT	0.47MF	20%	50V	
C016	1-101-361-00	CERAMIC	150PF	5%	50V	
C017	1-106-220-00	MYLAR	0.1MF	10%	100V	
C018	1-102-980-00	CERAMIC	270PF	5%	50V	
C019	1-106-383-00	MYLAR	0.047MF	10%	100V	
C020	1-124-917-11	ELECT	33MF	20%	50V	
C021	1-102-973-00	CERAMIC	100PF	5%	50V	
C022	1-101-004-00	CERAMIC	0.01MF		50V	
C023	1-102-973-00	CERAMIC	100PF	5%	50V	
C024	1-102-973-00	CERAMIC	100PF	5%	50V	
C025	1-102-973-00	CERAMIC	100PF	5%	50V	
C027	1-124-910-11	ELECT	47MF	20%	50V	
C251	1-124-499-11	ELECT	1MF	20%	50V	

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The components identified by shading and mark ⚠ are critical for safety.
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REF.NO.	PART NO.	DESCRIPTION			REMARK
C252	1-126-233-11	ELECT	22MF	20%	50V
C253	1-102-074-00	CERAMIC	0.001MF	10%	50V
C254	1-106-220-00	MYLAR	0.1MF	10%	100V
C255	1-124-636-00	ELECT	3300MF	20%	25V
C261	1-124-791-11	ELECT	1MF	20%	50V
C262	1-126-233-11	ELECT	22MF	20%	50V
C263	1-102-074-00	CERAMIC	0.001MF	10%	50V
C264	1-106-220-00	MYLAR	0.1MF	10%	100V
C265	1-124-564-11	ELECT	4700MF	20%	25V
C501	1-124-927-11	ELECT	4.7MF	20%	50V
C502	1-124-927-11	ELECT	4.7MF	20%	50V
C503	1-106-371-00	MYLAR	0.015MF	10%	400V
C504	1-101-361-00	CERAMIC	150PF	5%	50V
C505	1-108-794-11	MYLAR	0.0015MF	5%	50V
C506	1-106-375-12	MYLAR	0.022MF	10%	250V
C507	1-130-783-00	MYLAR	0.33MF	10%	100V
C508	1-106-375-12	MYLAR	0.022MF	10%	250V
C509	1-106-220-00	MYLAR	0.1MF	10%	100V
C510	1-161-959-00	CERAMIC	22PF	10%	500V
C511	1-108-620-11	MYLAR	0.0033MF	10%	100V
C512	1-106-220-00	MYLAR	0.1MF	10%	100V
C513	1-102-978-00	CERAMIC	220PF	5%	50V
C514	1-106-228-00	MYLAR	0.22MF	10%	100V
C515	1-124-499-11	ELECT	1MF	20%	50V
C516	1-108-614-11	MYLAR	0.001MF	10%	100V
C517	1-124-252-00	ELECT	0.33MF	20%	50V
C518	1-124-902-00	ELECT	0.47MF	20%	50V
C519	1-136-173-00	FILM	0.47MF	5%	50V
C520	1-102-121-00	CERAMIC	0.0022MF	10%	50V
C521	1-106-220-00	MYLAR	0.1MF	10%	100V
C522	1-124-122-11	ELECT	100MF	20%	50V
C523	1-108-614-11	MYLAR	0.001MF	10%	100V
C524	1-108-798-11	MYLAR	0.0033MF	5%	50V
C525	1-102-973-00	CERAMIC	100PF	5%	50V
C526	1-102-951-00	CERAMIC	15PF	5%	50V
C527	1-106-220-00	MYLAR	0.1MF	10%	100V
C531	1-124-190-00	ELECT	680MF	10%	25V
C532	1-124-122-11	ELECT	100MF	20%	50V
C533	1-106-216-00	MYLAR	0.068MF	10%	100V
C534	1-124-120-11	ELECT	220MF	20%	16V
C536	1-131-365-00	TANTALUM	10MF	10%	16V
C537	1-124-499-11	ELECT	1MF	20%	50V
C539	1-102-820-00	CERAMIC	330PF	5%	50V
C592	1-124-122-11	ELECT	100MF	20%	50V
C593	1-102-820-00	CERAMIC	330PF	5%	50V
C601	1-162-599-12	CERAMIC	0.0047MF		250V
C602	1-162-599-12	CERAMIC	0.0047MF		250V
C603	1-162-599-12	CERAMIC	0.0047MF		250V
C604	1-125-318-00	ELECT(BLOCK)	220MF	20%	400V
C605	1-124-510-11	ELECT	220MF	20%	35V
C606	1-102-114-00	CERAMIC	470PF	10%	50V
C607	1-130-834-00	MYLAR	1MF	10%	63V
C608	1-124-927-11	ELECT	4.7MF	20%	50V
C611	1-124-910-11	ELECT	47MF	20%	50V
C612	1-108-614-11	MYLAR	0.001MF	10%	100V
C613	1-136-539-11	FILM	0.0022MF	3%	2KV
C614	1-102-030-00	CERAMIC	330PF	10%	500V
C615	1-124-557-11	ELECT	1000MF	20%	25V
C616	1-102-030-00	CERAMIC	330PF	10%	500V
C617	1-124-122-11	ELECT	100MF	20%	50V
C618	1-162-115-00	CERAMIC	330PF	10%	2KV
C619	1-124-556-11	ELECT	2200MF	20%	16V
C620	1-136-173-00	FILM	0.47MF	5%	50V
C621	1-124-347-00	ELECT	100MF	20%	160V

REF.NO.	PART NO.	DESCRIPTION			REMARK
C622	1-124-556-11	ELECT	2200MF	20%	16V
C623	1-124-910-11	ELECT	47MF	20%	50V
C624	1-124-122-11	ELECT	100MF	20%	50V
C625	1-124-360-00	ELECT	1000MF	20%	16V
C626	1-123-875-11	ELECT	10MF	20%	50V
C627	1-108-614-11	MYLAR	0.001MF	10%	100V
C628	1-162-116-00	CERAMIC	680PF	10%	2KV
C631	1-124-927-11	ELECT	4.7MF	20%	50V
C632	1-102-973-00	CERAMIC	100PF	5%	50V
C633	1-102-973-00	CERAMIC	100PF	5%	50V
C801	1-126-105-11	ELECT	1000MF	20%	35V
C802	1-102-030-00	CERAMIC	330PF	10%	500V
C804	1-123-948-00	ELECT	22MF	20%	250V
C805	1-162-114-00	CERAMIC	0.0047MF		2KV
C806	1-106-220-00	MYLAR	0.1MF	10%	100V
C807	1-106-395-00	MYLAR	0.15MF	10%	200V
C810	1-124-494-00	ELECT	33MF		160V
C811	1-136-113-00	FILM	2MF	5%	200V
C812	1-124-634-11	ELECT	1MF	20%	250V
C813	1-102-212-00	CERAMIC	820PF	10%	500V
C814 ⚠	1-161-731-11	CERAMIC	0.001MF	10%	2KV
C815	1-136-540-11	FILM	0.82MF	5%	200V
C817	1-136-591-11	FILM	0.017MF	3%	1.4KV
C818	1-136-759-11	FILM	0.039MF	10%	630V
C819 ⚠	1-161-731-11	CERAMIC	0.001MF	10%	2KV
C820	1-106-218-00	MYLAR	0.0082MF	10%	400V
C821 ⚠	1-162-134-51	CERAMIC	470PF	10%	2KV
C822	1-102-114-00	CERAMIC	470PF	10%	50V
C823	1-106-359-00	MYLAR	0.0047MF	10%	400V
C824	1-102-212-00	CERAMIC	820PF	10%	500V
C825	1-106-375-12	MYLAR	0.022MF	10%	250V

<FILTER>

CF001	1-577-364-11	VIBRATOR, CERAMIC
CF501	1-567-888-11	OSCILLATOR, CERAMIC

<CONNECTOR>

D1	*1-568-878-51	PIN, CONNECTOR 3P
D2	*1-568-882-51	PIN, CONNECTOR 7P
D3	*1-568-882-71	PIN, CONNECTOR 7P
D11	*1-566-660-11	CONNECTOR, HINGE (PLUG) 18P
D18	*1-560-290-00	PLUG, CONNECTOR (2.5MM PITCH)
D21	*1-565-394-11	PIN, BOARD TO BOARD CONNECTOR
D22	*1-565-394-11	PIN, BOARD TO BOARD CONNECTOR
D23	*1-568-879-61	PIN, CONNECTOR 4P
D31	*1-565-394-11	PIN, BOARD TO BOARD CONNECTOR
D32	*1-565-394-11	PIN, BOARD TO BOARD CONNECTOR
D33	*1-565-394-11	PIN, BOARD TO BOARD CONNECTOR
D41	*1-566-367-11	CONNECTOR, HINGE (RECEPTACLE)
D44	*1-568-881-51	PIN, CONNECTOR 6P
D45	*1-568-881-61	PIN, CONNECTOR 6P
D51	*1-566-367-11	CONNECTOR, HINGE (RECEPTACLE)
D64	*1-565-395-11	PIN, CONNECTOR 3P
D82	*1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P
D83	*1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P
D84	*1-564-038-00	CONNECTOR PLUG, DY (MINI) 6P
D88	*1-568-879-71	PIN, CONNECTOR 4P
D501	*1-564-505-11	PLUG, CONNECTOR 2P
D801	*1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

D

REF.NO.	PART NO.	DESCRIPTION	REMARK
		<DIODE>	
D001	8-719-911-19	DIODE 1SS119	
D002	8-719-109-98	DIODE RD6.8ES-B3	
D003	8-719-911-19	DIODE 1SS119	
D004	8-719-911-19	DIODE 1SS119	
D005	8-719-109-89	DIODE RD5.6ES-B2	
D006	8-719-110-76	DIODE RD33ES-B1	
D007	8-719-911-19	DIODE 1SS119	
D009	8-719-109-89	DIODE RD5.6ES-B2	
D010	8-719-109-93	DIODE RD6.2ES-B2	
D011	8-719-109-93	DIODE RD6.2ES-B2	
D271	8-719-110-36	DIODE RD13ES-B2	
D272	8-719-911-19	DIODE 1SS119	
D501	8-719-911-19	DIODE 1SS119	
D504	8-719-911-55	DIODE U05G	
D506	8-719-016-42	DIODE MC932	
D508	8-719-911-19	DIODE 1SS119	
D509	8-719-911-19	DIODE 1SS119	
D511	8-719-911-55	DIODE U05G	
D512	8-719-911-55	DIODE U05G	
D513	8-719-109-81	DIODE RD4.7ES-B2	
D601	8-719-946-90	DIODE KBU4JL-6088	
D602	8-719-300-33	DIODE RU-3AM	
D603	8-719-911-55	DIODE U05G	
D604	8-719-911-55	DIODE U05G	
D605	8-719-911-55	DIODE U05G	
D606	8-719-300-33	DIODE RU-3AM	
D607	8-719-300-33	DIODE RU-3AM	
D608	8-719-300-33	DIODE RU-3AM	
D609	8-719-110-76	DIODE RD33ES-B1	
D610	8-719-300-59	DIODE CTU-12S	
D611	8-719-900-26	DIODE ERD29-08J	
D612	8-719-300-59	DIODE CTU-12S	
D613	8-719-300-33	DIODE RU-3AM	
D614	8-719-300-33	DIODE RU-3AM	
D616	8-719-109-93	DIODE RD6.2ES-B2	
D617	8-719-911-19	DIODE 1SS119	
D618	8-719-109-89	DIODE RD5.6ES-B2	
D619	8-719-110-76	DIODE RD33ES-B1	
D620	8-719-016-42	DIODE MC932	
D621	8-719-110-76	DIODE RD33ES-B1	
D622	8-719-911-19	DIODE 1SS119	
D623	8-719-911-19	DIODE 1SS119	
D624	8-719-911-19	DIODE 1SS119	
D630	8-719-110-39	DIODE RD15ES-B1	
D801	8-719-300-33	DIODE RU-3AM	
D802	8-719-300-33	DIODE RU-3AM	
D803	8-719-300-65	DIODE ES1F	
D804	8-719-911-55	DIODE U05G	
D805	8-719-911-55	DIODE U05G	
D806	8-719-945-80	DIODE ERC06-15S	
D807	8-719-945-80	DIODE ERC06-15S	
D808	8-719-900-26	DIODE ERD29-08J	
		<IC>	
IC001	8-759-035-37	IC SDA2083-A006	
IC002	8-752-332-82	IC CXD1050A-09P	
IC003	8-759-945-58	IC RC4558P	
IC005	8-759-748-56	IC SDA2546	
IC251	8-759-988-94	IC TDA2050	
	4-201-023-01	SPACER, INSULATING; IC251	
	4-812-134-00	RIVET NYLON, 3.5; IC251	
IC261	8-759-988-94	IC TDA2050	
	4-201-023-01	SPACER, INSULATING; IC261	
	4-812-134-00	RIVET NYLON, 3.5; IC261	
IC501	8-759-970-73	IC TEA2028B	
IC502	8-759-944-57	IC TDA8170	
IC601	8-759-988-95	IC TEA2260	
IC604	8-759-144-84	IC UPC24M05HF	
IC608	8-759-982-13	IC RC7812FA	
		<COIL>	
L001	1-408-414-00	INDUCTOR 27UH	
L501	1-408-225-00	INDUCTOR 3.3UH	
L601	*1-420-872-00	COIL, AIR CORE	
L602	1-410-396-41	FERRITE BEAD INDUCTOR	
L603	1-410-396-41	FERRITE BEAD INDUCTOR	
L604	1-410-671-31	INDUCTOR 47UH	
L605	1-459-585-11	COIL (WITH CORE) (DRUM TYPE)	
L606	1-421-013-00	COIL (HORIZONTAL CHOKE) 25UH	
L607	1-410-671-31	INDUCTOR 47UH	
L801	1-459-087-00	COIL,HCC DUST CORE 3.9MMH	
L803	1-459-104-00	COIL, DUST CORE	
L804	1-408-239-00	INDUCTOR 4.7MMH	
L805	⚠1-459-907-22	COIL, HORIZONTAL LINEARITY	
L806	1-459-087-00	COIL,HCC DUST CORE 3.9MMH	
L809	*1-420-872-00	COIL, AIR CORE	
L810	⚠1-421-794-21	TRANSFORMER, FERRITE (PMT)	
		<IC LINK>	
PS601	⚠1-532-984-91	LINK, IC 2A	
PS602	⚠1-532-984-91	LINK, IC 2A	
		<TRANSISTOR>	
Q001	8-729-900-89	TRANSISTOR DTC144ES	
Q002	8-729-900-65	TRANSISTOR DTA144ES	
Q003	8-729-173-38	TRANSISTOR 2SA733-K	
Q004	8-729-173-38	TRANSISTOR 2SA733-K	
Q005	8-729-900-89	TRANSISTOR DTC144ES	
Q006	8-729-900-89	TRANSISTOR DTC144ES	
Q007	8-729-900-89	TRANSISTOR DTC144ES	
Q008	8-729-900-89	TRANSISTOR DTC144ES	
Q009	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q251	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q261	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q271	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q502	8-729-173-38	TRANSISTOR 2SA733-K	
Q505	8-729-140-96	TRANSISTOR 2SD774-34	
Q506	8-729-140-97	TRANSISTOR 2SB734-34	
Q507	8-729-173-38	TRANSISTOR 2SA733-K	
Q598	8-729-173-38	TRANSISTOR 2SA733-K	
Q601	8-729-820-15	TRANSISTOR 2SB1274-RS	
Q602	8-729-209-02	TRANSISTOR 2SD1548-LB	
Q603	8-729-820-15	TRANSISTOR 2SB1274-RS	
Q604	8-729-173-38	TRANSISTOR 2SA733-K	
Q605	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q606	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q607	8-729-920-92	TRANSISTOR 2SD2096-EF	
Q608	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q609	8-729-320-62	TRANSISTOR 2SD789-34	
Q801	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q804	8-729-304-50	TRANSISTOR 2SD1941-06	
Q805	8-729-119-80	TRANSISTOR 2SC2688-LK	

D

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
R001	1-249-413-11	CARBON	470	5%	1/4W	
R002	1-249-413-11	CARBON	470	5%	1/4W	
R003	1-249-417-11	CARBON	1K	5%	1/4W	
R004	1-249-417-11	CARBON	1K	5%	1/4W	
R005	1-249-417-11	CARBON	1K	5%	1/4W	
R006	1-249-429-11	CARBON	10K	5%	1/4W	
R007	1-249-425-11	CARBON	4.7K	5%	1/4W	
R008	1-249-429-11	CARBON	10K	5%	1/4W	
R009	1-249-429-11	CARBON	10K	5%	1/4W	
R010	1-249-413-11	CARBON	470	5%	1/4W	
R011	1-249-425-11	CARBON	4.7K	5%	1/4W	
R012	1-249-417-11	CARBON	1K	5%	1/4W	
R013	1-249-429-11	CARBON	10K	5%	1/4W	
R014	1-249-428-11	CARBON	8.2K	5%	1/4W	
R015	1-249-423-11	CARBON	3.3K	5%	1/4W	
R016	1-249-435-11	CARBON	33K	5%	1/4W	
R017	1-249-436-11	CARBON	39K	5%	1/4W	
R018	1-249-440-11	CARBON	82K	5%	1/4W	
R019	1-249-417-11	CARBON	1K	5%	1/4W	
R020	1-249-417-11	CARBON	1K	5%	1/4W	
R021	1-249-425-11	CARBON	4.7K	5%	1/4W	
R022	1-249-425-11	CARBON	4.7K	5%	1/4W	
R023	1-249-410-11	CARBON	270	5%	1/4W	
R024	1-249-417-11	CARBON	1K	5%	1/4W	
R025	1-249-405-11	CARBON	100	5%	1/4W	
R026	1-249-417-11	CARBON	1K	5%	1/4W	
R027	1-249-405-11	CARBON	100	5%	1/4W	
R028	1-249-405-11	CARBON	100	5%	1/4W	
R029	1-249-429-11	CARBON	10K	5%	1/4W	
R030	1-249-429-11	CARBON	10K	5%	1/4W	
R031	1-249-433-11	CARBON	22K	5%	1/4W	
R032	1-249-429-11	CARBON	10K	5%	1/4W	
R033	1-249-429-11	CARBON	10K	5%	1/4W	
R034	1-249-431-11	CARBON	15K	5%	1/4W	
R035	1-249-433-11	CARBON	22K	5%	1/4W	
R036	1-249-432-11	CARBON	18K	5%	1/4W	
R037	1-249-425-11	CARBON	4.7K	5%	1/4W	
R038	1-249-422-11	CARBON	2.7K	5%	1/4W	
R039	1-249-433-11	CARBON	22K	5%	1/4W	
R040	1-249-431-11	CARBON	15K	5%	1/4W	
R041	1-249-429-11	CARBON	10K	5%	1/4W	
R042	1-249-417-11	CARBON	1K	5%	1/4W	
R043	1-249-413-11	CARBON	470	5%	1/4W	
R044	1-249-441-11	CARBON	100K	5%	1/4W	
R045	1-249-423-11	CARBON	3.3K	5%	1/4W	
R046	1-249-435-11	CARBON	33K	5%	1/4W	
R047	1-249-429-11	CARBON	10K	5%	1/4W	
R048	1-249-429-11	CARBON	10K	5%	1/4W	
R049	1-249-429-11	CARBON	10K	5%	1/4W	
R050	1-249-426-11	CARBON	5.6K	5%	1/4W	
R051	1-249-413-11	CARBON	470	5%	1/4W	
R052	1-249-417-11	CARBON	1K	5%	1/4W	
R053	1-249-417-11	CARBON	1K	5%	1/4W	
R054	1-249-417-11	CARBON	1K	5%	1/4W	
R055	1-249-411-11	CARBON	330	5%	1/4W	
R056	1-249-405-11	CARBON	100	5%	1/4W	
R057	1-249-409-11	CARBON	220	5%	1/4W	
R058	1-249-424-11	CARBON	3.9K	5%	1/4W	
R059	1-249-417-11	CARBON	1K	5%	1/4W	
R060	1-249-417-11	CARBON	1K	5%	1/4W	
R061	1-249-417-11	CARBON	1K	5%	1/4W	
R062	1-249-417-11	CARBON	1K	5%	1/4W	
R063	1-249-417-11	CARBON	1K	5%	1/4W	
R064	1-249-417-11	CARBON	1K	5%	1/4W	
R065	1-249-417-11	CARBON	1K	5%	1/4W	
R066	1-249-417-11	CARBON	1K	5%	1/4W	
R067	1-249-417-11	CARBON	1K	5%	1/4W	
R068	1-249-417-11	CARBON	1K	5%	1/4W	
R069	1-249-417-11	CARBON	1K	5%	1/4W	
R070	1-249-417-11	CARBON	1K	5%	1/4W	
R071	1-249-417-11	CARBON	1K	5%	1/4W	
R072	1-249-417-11	CARBON	1K	5%	1/4W	
R073	1-249-417-11	CARBON	1K	5%	1/4W	
R074	1-249-425-11	CARBON	4.7K	5%	1/4W	
R075	1-249-409-11	CARBON	220	5%	1/4W	
R251	1-249-425-11	CARBON	4.7K	5%	1/4W	
R252	1-249-412-11	CARBON	390	5%	1/4W	
R253	1-249-429-11	CARBON	10K	5%	1/4W	
R254	1-216-357-00	METAL OXIDE	4.7	5%	1W	F
R255	1-249-429-11	CARBON	10K	5%	1/4W	
R256	1-247-897-11	CARBON	560K	5%	1/4W	
R257	1-249-431-11	CARBON	15K	5%	1/4W	
R258	1-215-869-11	METAL OXIDE	1K	5%	1W	F
R259	1-249-425-11	CARBON	4.7K	5%	1/4W	
R261	1-249-425-11	CARBON	4.7K	5%	1/4W	
R262	1-249-412-11	CARBON	390	5%	1/4W	
R263	1-249-429-11	CARBON	10K	5%	1/4W	
R264	1-216-357-00	METAL OXIDE	4.7	5%	1W	F
R265	1-249-429-11	CARBON	10K	5%	1/4W	
R266	1-247-897-11	CARBON	560K	5%	1/4W	
R267	1-249-431-11	CARBON	15K	5%	1/4W	
R268	1-215-869-11	METAL OXIDE	1K	5%	1W	F
R269	1-249-425-11	CARBON	4.7K	5%	1/4W	
R271	1-249-415-11	CARBON	680	5%	1/4W	
R272	1-249-429-11	CARBON	10K	5%	1/4W	
R273	1-249-429-11	CARBON	10K	5%	1/4W	
R500	1-247-897-11	CARBON	560K	5%	1/4W	
R501	1-249-413-11	CARBON	470	5%	1/4W	
R502	1-249-409-11	CARBON	220	5%	1/4W	
R503	1-249-410-11	CARBON	270	5%	1/4W	
R504	1-215-427-00	METAL	1.8K	1%	1/6W	
R505	1-249-431-11	CARBON	15K	5%	1/4W	
R506	1-249-428-11	CARBON	8.2K	5%	1/4W	
R509	1-249-424-11	CARBON	3.9K	5%	1/4W	
R510	1-249-426-11	CARBON	5.6K	5%	1/4W	
R514	1-249-409-11	CARBON	220	5%	1/4W	
R515	1-249-423-11	CARBON	3.3K	5%	1/4W	
R517	1-249-429-11	CARBON	10K	5%	1/4W	
R518	1-249-437-11	CARBON	47K	5%	1/4W	
R519	1-249-433-11	CARBON	22K	5%	1/4W	
R520	1-249-411-11	CARBON	330	5%	1/4W	
R521	1-249-405-11	CARBON	100	5%	1/4W	
R522	1-215-469-00	METAL	100K	1%	1/6W	
R523	1-249-417-11	CARBON	1K	5%	1/4W	
R524	1-249-421-11	CARBON	2.2K	5%	1/4W	
R525	1-249-417-11	CARBON	1K	5%	1/4W	
R526	1-249-409-11	CARBON	220	5%	1/4W	F
R527	1-249-431-11	CARBON	15K	5%	1/4W	
R528	1-249-408-11	CARBON	180	5%	1/4W	
R529	1-249-427-11	CARBON	6.8K	5%	1/4W	
R530	1-249-448-11	CARBON	1.2	5%	1/4W	F
R531	1-247-881-00	CARBON	120K	5%	1/4W	
R532	1-249-417-11	CARBON	1K	5%	1/4W	
R534	1-247-901-11	CARBON	820K	5%	1/4W	
R535	1-249-749-00	CARBON	2.2M	5%	1/4W	

D VM

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION				REMARK
R536	1-249-749-00	CARBON	2.2M	5%	1/4W	
R537	1-249-434-11	CARBON	27K	5%	1/4W	
R538	1-247-883-00	CARBON	150K	5%	1/4W	
R539	1-247-883-00	CARBON	150K	5%	1/4W	
R540	1-249-399-11	CARBON	33	5%	1/4W	
R541	1-249-438-11	CARBON	56K	5%	1/4W	
R542	1-249-389-11	CARBON	4.7	5%	1/4W	
R543	1-249-451-11	CARBON	2.2	5%	1/4W	
R544	1-247-745-11	CARBON	330	5%	1/2W	
R545	1-249-433-11	CARBON	22K	5%	1/4W	
R546	1-249-434-11	CARBON	27K	5%	1/4W	
R547	1-249-423-11	CARBON	3.3K	5%	1/4W	
R548	1-216-349-00	METAL OXIDE	1	5%	1W	F
R549	1-216-454-11	METAL OXIDE	390	5%	2W	F
R550	1-249-440-11	CARBON	82K	5%	1/4W	
R551	1-249-749-00	CARBON	2.2M	5%	1/4W	
R553	1-216-869-11	METAL OXIDE	1K	5%	1W	
R554	1-249-411-11	CARBON	330	5%	1/4W	
R555	1-249-749-00	CARBON	2.2M	5%	1/4W	
R556	1-249-405-11	CARBON	100	5%	1/4W	
R557	1-249-425-11	CARBON	4.7K	5%	1/4W	
R559	1-249-427-11	CARBON	6.8K	5%	1/4W	
R560	1-249-411-11	CARBON	330	5%	1/4W	
R591	1-249-416-11	CARBON	820	5%	1/4W	
R592	1-249-417-11	CARBON	1K	5%	1/4W	
R593	1-249-419-11	CARBON	1.5K	5%	1/4W	
R594	1-249-428-11	CARBON	8.2K	5%	1/4W	
R597	1-249-413-11	CARBON	470	5%	1/4W	
R598	1-215-900-11	METAL OXIDE	22K	5%	2W	F
R599	1-247-887-00	CARBON	220K	5%	1/4W	
R600	1-249-381-11	CARBON	1	5%	1/4W	
R603	1-216-400-11	METAL OXIDE	8.2	5%	3W	F
R604	1-249-405-11	CARBON	100	5%	1/4W	
R605	1-249-433-11	CARBON	22K	5%	1/4W	
R606	1-249-418-11	CARBON	1.2K	5%	1/4W	
R607	1-249-425-11	CARBON	4.7K	5%	1/4W	
R608	1-216-488-11	METAL OXIDE	18K	5%	3W	F
R609	1-249-396-11	CARBON	18	5%	1/4W	
R610	1-244-941-00	CARBON	680K	5%	1/2W	
R611	1-249-400-11	CARBON	39	5%	1/4W	
R612	1-249-417-11	CARBON	1K	5%	1/4W	
R613	1-249-441-11	CARBON	100K	5%	1/4W	
R614	1-205-758-11	WIREWOUND	100	10%	10W	F
R616	1-247-881-00	CARBON	120K	5%	1/4W	
R617	1-249-411-11	CARBON	330	5%	1/4W	
R618	1-216-431-11	METAL OXIDE	560	5%	1W	F
R619	1-249-429-11	CARBON	10K	5%	1/4W	
R620	1-249-433-11	CARBON	22K	5%	1/4W	
R621	1-249-431-11	CARBON	15K	5%	1/4W	
R622	1-249-429-11	CARBON	10K	5%	1/4W	
R623	1-249-433-11	CARBON	22K	5%	1/4W	
R624	1-249-426-11	CARBON	5.6K	5%	1/4W	
R625	1-215-865-11	METAL OXIDE	220	5%	1W	F
R626	1-249-411-11	CARBON	330	5%	1/4W	
R628	1-249-393-11	CARBON	10	5%	1/4W	
R629	1-249-411-11	CARBON	330	5%	1/4W	
R633	1-249-417-11	CARBON	1K	5%	1/4W	
R634	1-216-430-11	METAL OXIDE	390	5%	1W	F
R635	1-249-429-11	CARBON	10K	5%	1/4W	
R636	1-249-429-11	CARBON	10K	5%	1/4W	
R643	1-217-189-21	WIREWOUND	0.12	5%	2W	F
R647	1-216-485-11	METAL OXIDE	5.6K	5%	3W	F
R648	1-216-485-11	METAL OXIDE	5.6K	5%	3W	F
R651	1-249-405-11	CARBON	100	5%	1/4W	
R653	1-205-758-11	WIREWOUND	100	10%	10W	F
R802	1-249-443-11	CARBON	0.47	5%	1/4W	F
R805	1-249-448-11	CARBON	1.2	5%	1/4W	F
R806	1-249-439-11	CARBON	68K	5%	1/4W	
R807	1-216-869-11	METAL OXIDE	1K	5%	1W	
R809	1-202-821-11	SOLID	1.8K	10%	1/2W	
R810	1-202-818-00	SOLID	1K	10%	1/2W	
R811	1-215-882-00	METAL OXIDE	22	5%	2W	F
R812	1-249-494-11	CARBON	68K	5%	1/2W	
R815	1-215-884-11	METAL OXIDE	47	5%	2W	F
R816	1-215-868-00	METAL OXIDE	680	5%	1W	F
R817	1-249-417-11	CARBON	1K	5%	1/4W	
R820	1-249-403-11	CARBON	68	5%	1/4W	
R821	1-247-725-11	CARBON	10K	5%	1/4W	F
R822 ⚠	1-217-778-61	FUSIBLE	1K	5%	1W	F
R825	1-216-345-11	METAL OXIDE	0.47	5%	1W	F
R826	1-249-441-11	CARBON	100K	5%	1/4W	
R827	1-249-429-11	CARBON	10K	5%	1/4W	
R828	1-249-423-11	CARBON	3.3K	5%	1/4W	
R829	1-249-413-11	CARBON	470	5%	1/4W	
R831	1-249-451-11	CARBON	2.2	5%	1/4W	
R5501	1-249-429-11	CARBON	10K	5%	1/4W	
R5503	1-249-389-11	CARBON	4.7	5%	1/4W	
R5504	1-247-903-00	CARBON	1M	5%	1/4W	
R5505	1-249-393-11	CARBON	10	5%	1/4W	

<VARIABLE RESISTOR>

RV501	1-238-013-11	RES, ADJ, CARBON 2.2K	
RV502	1-238-016-11	RES, ADJ, CARBON 10K	
RV601	1-238-011-11	RES, ADJ, CARBON 470	

<SPARK GAP>

SG801	1-519-422-11	GAP, SPARK

<TRANSFORMER>

T601 ⚠	1-449-822-11	TRANSFORMER
T602 ⚠	1-424-277-11	TRANSFORMER, TRIGGER PULSE
T801 ⚠	1-437-090-21	HDT
T802 ⚠	1-439-416-11	TRANSFORMER ASSY, FLYBACK (UX-1600)

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*1-631-226-11 VM BOARD
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<CAPACITOR>

C751	1-101-361-00	CERAMIC	150PF	5%	50V
C752	1-108-629-11	MYLAR	0.018MF	10%	100V
C753	1-106-367-00	MYLAR	0.01MF	10%	400V
C754	1-102-980-00	CERAMIC	270PF	5%	50V
C757	1-108-692-11	MYLAR	0.01MF	10%	200V
C759	1-123-875-11	ELECT	10MF	20%	50V
C760	1-124-917-11	ELECT	33MF	20%	50V
C761	1-101-006-00	CERAMIC	0.047MF		50V
C762	1-106-367-00	MYLAR	0.01MF	10%	400V

<COIL>

L751	1-408-413-00	INDUCTOR	22UH

<TRANSISTOR>

VM | H1 | H2 | Y

REF.NO.	PART NO.	DESCRIPTION				REMARK
Q751	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q752	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q753	8-729-140-97	TRANSISTOR 2SB734-34				
Q754	8-729-140-96	TRANSISTOR 2SD774-34				
		<RESISTOR>				
R751	1-249-418-11	CARBON	1.2K	5%	1/4W	
R752	1-249-426-11	CARBON	5.6K	5%	1/4W	
R753	1-249-414-11	CARBON	560	5%	1/4W	
R754	1-249-434-11	CARBON	27K	5%	1/4W	
R755	1-249-405-11	CARBON	100	5%	1/4W	
R756	1-249-419-11	CARBON	1.5K	5%	1/4W	
R757	1-249-405-11	CARBON	100	5%	1/4W	
R758	1-249-409-11	CARBON	220	5%	1/4W	
R760	1-249-411-11	CARBON	330	5%	1/4W	
R761	1-249-429-11	CARBON	10K	5%	1/4W	
R762	1-247-895-00	CARBON	470K	5%	1/4W	
R763	1-249-429-11	CARBON	10K	5%	1/4W	
R764	1-249-455-11	CARBON	4.7	5%	1/4W	F
R765	1-249-455-11	CARBON	4.7	5%	1/4W	F
R766	1-247-753-11	CARBON	1.2K	5%	1/2W	
R767	1-247-751-11	CARBON	820	5%	1/2W	
R768	1-215-887-00	METAL OXIDE	150	5%	2W	F
R769	1-212-889-00	FUSIBLE	220	5%	1/4W	F
R770	1-212-936-00	FUSIBLE	1.2	5%	1/2W	F
		<CONNECTOR>				
VM73	*1-568-878-51	PIN, CONNECTOR 3P				
VM88	*1-568-879-71	PIN, CONNECTOR 4P				

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*1-631-220-11 H1 BOARD
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		<CONNECTOR>				
H1-1	*1-568-878-51	PIN, CONNECTOR 3P				
H1-02	1-568-678-11	TERMINAL BLOCK, S 3P				
H1-4	*1-568-879-51	PIN, CONNECTOR 4P				
H1-5	1-562-837-11	JACK				
H1-23	*1-568-879-61	PIN, CONNECTOR 4P				
H1-43	*1-564-512-11	PLUG, CONNECTOR 9P				
		<RESISTOR>				
R1651	1-249-413-11	CARBON	470	5%	1/4W	
R1652	1-249-413-11	CARBON	470	5%	1/4W	
		<SWITCH>				
S1651	1-571-532-21	SWITCH, TACTIL				
S1652	1-571-532-21	SWITCH, TACTIL				
S1653	1-571-532-21	SWITCH, TACTIL				

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*1-631-221-11 H2 BOARD
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*4-374-987-01 GUIDE, LIGHT
*4-388-955-01 BRACKET (B), LIGHT GUIDE

REF.NO.	PART NO.	DESCRIPTION				REMARK
		<DIODE>				
D1651	8-719-311-89	DIODE SEL1222R-C				
	*4-387-801-01	HOLDER, LED; D1651				
D1652	8-719-311-89	DIODE SEL1222R-C				
	*4-387-801-01	HOLDER, LED; D1652				
D1653	8-719-311-89	DIODE SEL1222R-C				
	*4-387-801-01	HOLDER, LED; D1653				
D1654	8-719-948-31	DIODE LD 201VR				
	*4-387-825-02	HOLDER, LED; D1654				
		<CONNECTOR>				
H2-2	*1-568-882-51	PIN, CONNECTOR 7P				
H2-3	*1-568-878-51	PIN, CONNECTOR 3P				
		<IC>				
IC1651	8-741-138-70	IC BX-1387				
		<RESISTOR>				
R1661	1-249-413-11	CARBON	470	5%	1/4W	
R1662	1-249-413-11	CARBON	470	5%	1/4W	

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*1-631-217-11 Y BOARD
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		<CAPACITOR>				
C1701	1-126-233-11	ELECT	22MF	20%	50V	
C1702	1-101-004-00	CERAMIC	0.01MF		50V	
C1703	1-126-233-11	ELECT	22MF	20%	50V	
C1704	1-101-004-00	CERAMIC	0.01MF		50V	
C1705	1-126-233-11	ELECT	22MF	20%	50V	
C1706	1-126-233-11	ELECT	22MF	20%	50V	
C1707	1-126-233-11	ELECT	22MF	20%	50V	
C1710	1-102-959-00	CERAMIC	22PF	5%	50V	
C1711	1-101-888-00	CERAMIC	68PF	5%	50V	
		<DIODE>				
D1701	8-719-911-19	DIODE 1SS119				
		<NR PACK>				
DNR170	1-466-181-11	NR PACK (NRP-2E)				
		<IC>				
IC1701	8-759-982-10	IC RC7809FA				
IC1702	8-759-604-29	IC M5F7805				
		<COIL>				
L1701	1-410-671-31	INDUCTOR	47UH			
L1702	1-408-405-00	INDUCTOR	4.7UH			
L1703	1-410-671-31	INDUCTOR	47UH			
		<TRANSISTOR>				
Q1701	8-729-900-89	TRANSISTOR DTC144ES				
Q1702	8-729-900-89	TRANSISTOR DTC144ES				

Y J1

REF.NO.	PART NO.	DESCRIPTION				REMARK
Q1703	8-729-900-80	TRANSISTOR DTC114ES				
Q1704	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q1705	8-729-173-38	TRANSISTOR 2SA733-K				
		<RESISTOR>				
R1701	1-215-860-11	METAL OXIDE	33	5%	1W	
R1702	1-249-425-11	CARBON	4.7K	5%	1/4W	
R1703	1-249-434-11	CARBON	27K	5%	1/4W	
R1704	1-249-425-11	CARBON	4.7K	5%	1/4W	
R1705	1-249-426-11	CARBON	5.6K	5%	1/4W	
R1706	1-249-427-11	CARBON	6.8K	5%	1/4W	
R1707	1-249-429-11	CARBON	10K	5%	1/4W	
R1708	1-249-429-11	CARBON	10K	5%	1/4W	
R1710	1-249-433-11	CARBON	22K	5%	1/4W	
R1711	1-249-438-11	CARBON	56K	5%	1/4W	
R1712	1-249-413-11	CARBON	470	5%	1/4W	
R1713	1-249-414-11	CARBON	560	5%	1/4W	
R1714	1-249-417-11	CARBON	1K	5%	1/4W	
R1717	1-249-417-11	CARBON	1K	5%	1/4W	
R1718	1-249-417-11	CARBON	1K	5%	1/4W	
R1723	1-249-415-11	CARBON	680	5%	1/4W	
		<CONNECTOR>				
Y3	*1-568-882-71	PIN, CONNECTOR 7P				
Y34	*1-568-881-61	PIN, CONNECTOR 6P				
**********						
	*A-1651-001-A	J1 BOARD, COMPLETE				
		**********				
		<CAPACITOR>				
C203	1-124-925-11	ELECT	2.2MF	20%	50V	
C205	1-124-927-11	ELECT	4.7MF	20%	50V	
C206	1-124-925-11	ELECT	2.2MF	20%	50V	
C207	1-124-927-11	ELECT	4.7MF	20%	50V	
C213	1-126-233-11	ELECT	22MF	20%	50V	
C214	1-106-363-00	MYLAR	0.0068MF	10%	400V	
C217	1-106-363-00	MYLAR	0.0068MF	10%	400V	
C218	1-106-375-12	MYLAR	0.022MF	10%	250V	
C219	1-106-375-12	MYLAR	0.022MF	10%	250V	
C220	1-108-620-11	MYLAR	0.0033MF	10%	100V	
C221	1-108-620-11	MYLAR	0.0033MF	10%	100V	
C222	1-106-385-00	MYLAR	0.056MF	10%	100V	
C223	1-106-385-00	MYLAR	0.056MF	10%	100V	
C224	1-106-367-00	MYLAR	0.01MF	10%	400V	
C225	1-136-173-00	FILM	0.47MF	5%	50V	
C226	1-136-173-00	FILM	0.47MF	5%	50V	
C227	1-106-375-12	MYLAR	0.022MF	10%	250V	
C228	1-106-379-12	MYLAR	0.033MF	10%	250V	
C229	1-106-371-00	MYLAR	0.015MF	10%	400V	
C230	1-106-371-00	MYLAR	0.015MF	10%	400V	
C231	1-124-902-00	ELECT	0.47MF	20%	50V	
C232	1-123-875-11	ELECT	10MF	20%	50V	
C233	1-163-005-11	CERAMIC CHIP	470PF	10%	50V	
C234	1-163-005-11	CERAMIC CHIP	470PF	10%	50V	
C235	1-163-005-11	CERAMIC CHIP	470PF	10%	50V	
C236	1-163-005-11	CERAMIC CHIP	470PF	10%	50V	
C237	1-124-902-00	ELECT	0.47MF	20%	50V	
C238	1-163-125-00	CERAMIC CHIP	220PF	5%	50V	
C239	1-126-103-11	ELECT	470MF	20%	16V	
C1401	1-123-875-11	ELECT	10MF	20%	50V	
C1402	1-126-103-11	ELECT	470MF	20%	16V	
C1403	1-163-003-11	CERAMIC CHIP	330PF	10%	50V	
C1404	1-124-902-00	ELECT	0.47MF	20%	50V	
C1405	1-136-017-00	CERAMIC CHIP	0.0047MF		50V	
C1406	1-124-902-00	ELECT	0.47MF	20%	50V	
C1407	1-124-910-11	ELECT	47MF	20%	50V	
C1408	1-124-122-11	ELECT	100MF	20%	50V	
C1409	1-126-233-11	ELECT	22MF	20%	50V	
C1410	1-123-875-11	ELECT	10MF	20%	50V	
C1411	1-123-875-11	ELECT	10MF	20%	50V	
C1412	1-124-910-11	ELECT	47MF	20%	50V	
C1413	1-124-910-11	ELECT	47MF	20%	50V	
C1414	1-123-875-11	ELECT	10MF	20%	50V	
C1415	1-124-902-00	ELECT	0.47MF	20%	50V	
C1416	1-124-902-00	ELECT	0.47MF	20%	50V	
C1417	1-124-120-11	ELECT	220MF	20%	16V	
C1418	1-163-003-11	CERAMIC CHIP	330PF	10%	50V	
C1419	1-163-003-11	CERAMIC CHIP	330PF	10%	50V	
C1425	1-124-902-00	ELECT	0.47MF	20%	50V	
C1426	1-124-902-00	ELECT	0.47MF	20%	50V	
C1427	1-136-017-00	CERAMIC CHIP	0.0047MF		50V	
C1428	1-136-017-00	CERAMIC CHIP	0.0047MF		50V	
C1429	1-136-017-00	CERAMIC CHIP	0.0047MF		50V	
C1430	1-163-003-11	CERAMIC CHIP	330PF	10%	50V	
C1431	1-126-529-11	ELECT	0.47MF	20%	50V	
C1432	1-124-902-00	ELECT	0.47MF	20%	50V	
C1433	1-124-122-11	ELECT	100MF	20%	50V	
C1436	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V	
C1437	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V	
C1438	1-106-367-00	MYLAR	0.01MF	10%	400V	
C1439	1-106-367-00	MYLAR	0.01MF	10%	400V	
C1440	1-123-875-11	ELECT	10MF	20%	50V	
C1441	1-123-875-11	ELECT	10MF	20%	50V	
C1442	1-124-910-11	ELECT	47MF	20%	50V	
C1443	1-124-910-11	ELECT	47MF	20%	50V	
C1444	1-124-910-11	ELECT	47MF	20%	50V	
C1445	1-102-824-00	CERAMIC	470PF	5%	50V	
C1446	1-102-824-00	CERAMIC	470PF	5%	50V	
C1501	1-123-875-11	ELECT	10MF	20%	50V	
C1502	1-123-875-11	ELECT	10MF	20%	50V	
C1503	1-108-614-11	MYLAR	0.001MF	10%	100V	
C1504	1-124-910-11	ELECT	47MF	20%	50V	
C1505	1-106-383-00	MYLAR	0.047MF	10%	100V	
C1507	1-108-620-11	MYLAR	0.0033MF	10%	100V	
C1508	1-123-875-11	ELECT	10MF	20%	50V	
C1509	1-124-499-11	ELECT	1MF	20%	50V	
C1511	1-123-875-11	ELECT	10MF	20%	50V	
C1513	1-163-105-00	CERAMIC CHIP	33PF	5%	50V	
		<CONNECTOR>				
CN1401	1-565-838-11	PIN JACK BLOCK 2P				
J1402	1-561-534-41	SOCKET 21P				
J1403	1-561-534-41	SOCKET 21P				
J1-41	*1-566-641-11	CONNECTOR, HINGE (TAB) 18P				
J1-43	*1-564-524-11	PLUG, CONNECTOR 9P				
J1-44	*1-564-527-11	PLUG, CONNECTOR 12P				
J1-51	*1-566-641-11	CONNECTOR, HINGE (TAB) 18P				
J1-67	*1-564-518-11	PLUG, CONNECTOR 3P				
		<DIODE>				
D201	8-719-110-14	DIODE RD9.1ES-B3				

REF.NO.	PART NO.	DESCRIPTION	REMARK
D202	8-719-110-14	DIODE RD9.1ES-B3	
D205	8-719-110-04	DIODE RD7.5ES-B3	
D206	8-719-110-04	DIODE RD7.5ES-B3	
D1401	8-719-110-04	DIODE RD7.5ES-B3	
D1403	8-719-110-04	DIODE RD7.5ES-B3	
D1404	8-719-110-04	DIODE RD7.5ES-B3	
D1405	8-719-110-04	DIODE RD7.5ES-B3	
D1406	8-719-110-04	DIODE RD7.5ES-B3	
D1407	8-719-110-18	DIODE RD10ES-B3	
D1408	8-719-110-14	DIODE RD9.1ES-B3	
D1409	8-719-110-14	DIODE RD9.1ES-B3	
D1410	8-719-110-14	DIODE RD9.1ES-B3	
D1415	8-719-110-04	DIODE RD7.5ES-B3	
D1418	8-719-110-04	DIODE RD7.5ES-B3	
D1419	8-719-110-04	DIODE RD7.5ES-B3	
D1420	8-719-110-04	DIODE RD7.5ES-B3	
D1421	8-719-110-04	DIODE RD7.5ES-B3	
D1422	8-719-110-04	DIODE RD7.5ES-B3	
D1423	8-719-110-04	DIODE RD7.5ES-B3	
D1424	8-719-110-04	DIODE RD7.5ES-B3	
D1425	8-719-110-04	DIODE RD7.5ES-B3	
D1426	8-719-110-04	DIODE RD7.5ES-B3	
D1501	8-719-300-33	DIODE RU-3AM	
D1502	8-719-911-19	DIODE 1SS119	
D1503	8-719-911-19	DIODE 1SS119	
D1504	8-719-911-19	DIODE 1SS119	
D1505	8-719-911-19	DIODE 1SS119	
D1506	8-719-110-85	DIODE RD36ES-B4	
D1507	8-719-911-19	DIODE 1SS119	
D1510	8-719-911-19	DIODE 1SS119	

<IC>

IC201	8-759-013-17	IC TDA6200	
IC1401	8-752-032-27	IC CXA1114P	
IC1402	8-759-946-32	IC TEA2014A	
IC1403	8-759-340-53	IC HD14053BP	
IC1501	8-759-942-16	IC TEA2031A	

<TRANSISTOR>

Q201	8-729-271-22	TRANSISTOR 2SC2712-G	
Q202	8-729-271-22	TRANSISTOR 2SC2712-G	
Q1401	8-729-216-22	TRANSISTOR 2SA1162	
Q1402	8-729-271-22	TRANSISTOR 2SC2712-G	
Q1403	8-729-271-22	TRANSISTOR 2SC2712-G	
Q1404	8-729-216-22	TRANSISTOR 2SA1162	

<RESISTOR>

R201	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R202	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R203	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R204	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R205	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R206	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R207	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R208	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R209	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R210	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R211	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R212	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R213	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R214	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R215	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R216	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R217	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R218	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R219	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R220	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R221	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R222	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R223	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R224	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R225	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R226	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R227	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R228	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R229	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R230	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R231	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R232	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R233	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R234	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R240	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R1401	1-216-023-00	METAL GLAZE	82	5%	1/10W	
R1402	1-216-170-00	METAL GLAZE	68	5%	1/8W	
R1403	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R1404	1-216-178-00	METAL GLAZE	150	5%	1/8W	
R1405	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1407	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R1408	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R1409	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R1410	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R1411	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R1412	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R1413	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R1414	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R1415	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R1416	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R1417	1-216-023-00	METAL GLAZE	82	5%	1/10W	
R1418	1-247-738-11	CARBON	82	5%	1/2W	F
R1422	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1423	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R1424	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R1425	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1426	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1427	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R1428	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R1429	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R1430	1-216-170-00	METAL GLAZE	68	5%	1/8W	
R1433	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R1434	1-249-393-11	CARBON	10	5%	1/4W	F
R1437	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1440	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R1441	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R1442	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R1443	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R1444	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R1445	1-216-095-00	METAL GLAZE	82K	5%	1/10W	
R1446	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R1447	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R1448	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1452	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1453	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1454	1-216-180-00	METAL GLAZE	180	5%	1/8W	
R1455	1-216-180-00	METAL GLAZE	180	5%	1/8W	
R1457	1-216-025-00	METAL GLAZE	100	5%	1/10W	

J1 J2 Z

REF.NO.	PART NO.	DESCRIPTION			REMARK
R1459	1-216-025-00	METAL GLAZE	100	5% 1/10W	
R1460	1-216-065-00	METAL GLAZE	4.7K	5% 1/10W	
R1461	1-216-190-00	METAL GLAZE	470	5% 1/8W	
R1462	1-216-057-00	METAL GLAZE	2.2K	5% 1/10W	
R1463	1-216-055-00	METAL GLAZE	1.8K	5% 1/10W	
R1464	1-216-059-00	METAL GLAZE	2.7K	5% 1/10W	
R1465	1-216-023-00	METAL GLAZE	82	5% 1/10W	
R1466	1-216-033-00	METAL GLAZE	220	5% 1/10W	
R1467	1-216-025-00	METAL GLAZE	100	5% 1/10W	
R1468	1-216-025-00	METAL GLAZE	100	5% 1/10W	
R1469	1-216-025-00	METAL GLAZE	100	5% 1/10W	
R1470	1-216-025-00	METAL GLAZE	100	5% 1/10W	
R1471	1-216-023-00	METAL GLAZE	82	5% 1/10W	
R1472	1-216-023-00	METAL GLAZE	82	5% 1/10W	
R1473	1-216-023-00	METAL GLAZE	82	5% 1/10W	
R1474	1-216-113-00	METAL GLAZE	470K	5% 1/10W	
R1476	1-216-089-00	METAL GLAZE	47K	5% 1/10W	
R1477	1-216-089-00	METAL GLAZE	47K	5% 1/10W	
R1478	1-216-113-00	METAL GLAZE	470K	5% 1/10W	
R1480	1-216-190-00	METAL GLAZE	470	5% 1/8W	
R1482	1-216-178-00	METAL GLAZE	150	5% 1/8W	
R1483	1-216-178-00	METAL GLAZE	150	5% 1/8W	
R1484	1-216-073-00	METAL GLAZE	10K	5% 1/10W	
R1485	1-216-073-00	METAL GLAZE	10K	5% 1/10W	
R1486	1-216-073-00	METAL GLAZE	10K	5% 1/10W	
R1487	1-216-065-00	METAL GLAZE	4.7K	5% 1/10W	
R1488	1-216-065-00	METAL GLAZE	4.7K	5% 1/10W	
R1489	1-216-065-00	METAL GLAZE	4.7K	5% 1/10W	
R1501	1-216-081-00	METAL GLAZE	22K	5% 1/10W	
R1502	1-216-083-00	METAL GLAZE	27K	5% 1/10W	
R1503	1-216-113-00	METAL GLAZE	470K	5% 1/10W	
R1504	1-216-085-00	METAL GLAZE	33K	5% 1/10W	
R1505	1-216-081-00	METAL GLAZE	22K	5% 1/10W	
R1506	1-216-113-00	METAL GLAZE	470K	5% 1/10W	
R1509	1-216-105-00	METAL GLAZE	220K	5% 1/10W	
R1510	1-216-067-00	METAL GLAZE	5.6K	5% 1/10W	
R1511	1-216-049-00	METAL GLAZE	1K	5% 1/10W	
R1512	1-216-073-00	METAL GLAZE	10K	5% 1/10W	
R1513	1-216-091-00	METAL GLAZE	56K	5% 1/10W	
R1514	1-216-049-00	METAL GLAZE	1K	5% 1/10W	
R1516	1-216-079-00	METAL GLAZE	18K	5% 1/10W	
R1517	1-216-033-00	METAL GLAZE	220	5% 1/10W	
R1519	1-216-101-00	METAL GLAZE	150K	5% 1/10W	
R1520	1-216-111-00	METAL GLAZE	390K	5% 1/10W	
R1521	1-216-214-00	METAL GLAZE	4.7K	5% 1/8W	
R1556	1-216-067-00	METAL GLAZE	5.6K	5% 1/10W	

<VARIABLE RESISTOR>

RV1501	1-238-023-11	RES, ADJ, CARBON	470K
RV1502	1-228-994-00	RES, ADJ, CARBON	10K
RV1503	1-238-017-11	RES, ADJ, CARBON	22K
RV1504	1-238-012-11	RES, ADJ, CARBON	1K
RV1505	1-238-023-11	RES, ADJ, CARBON	470K
RV1506	1-238-017-11	RES, ADJ, CARBON	22K
RV1507	1-238-009-11	RES, ADJ, CARBON	220
RV1508	1-238-016-11	RES, ADJ, CARBON	10K
RV1509	1-238-023-11	RES, ADJ, CARBON	470K

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*1-631-222-11 J2 BOARD
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1-537-088-21 TERMINAL BOARD, INPUT/OUTPUT

REF.NO.	PART NO.	DESCRIPTION			REMARK

<CAPACITOR>

C1751	1-106-375-12	MYLAR	0.022MF	10%	250V
C1752	1-106-375-12	MYLAR	0.022MF	10%	250V

<CONNECTOR>

J2-4	*1-564-519-11	PLUG, CONNECTOR 4P	

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*1-632-477-11 Z BOARD
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<CAPACITOR>

C080	1-101-004-00	CERAMIC	0.01MF		50V
C081	1-106-371-00	MYLAR	0.015MF	10%	400V
C082	1-102-114-00	CERAMIC	470PF	10%	50V
C083	1-106-371-00	MYLAR	0.015MF	10%	400V
C084	1-106-367-00	MYLAR	0.01MF	10%	400V
C085	1-136-163-00	FILM	0.068MF	5%	50V

<DIODE>

D080	8-719-911-19	DIODE 1SS119
D081	8-719-911-19	DIODE 1SS119
D083	8-719-911-19	DIODE 1SS119

<IC>

IC080	8-759-145-84	IC UPD4584BC
IC081	8-759-240-40	IC TC4040BP

<TRANSISTOR>

Q080	8-729-173-38	TRANSISTOR 2SA733-K
Q081	8-729-173-38	TRANSISTOR 2SA733-K
Q082	8-729-900-80	TRANSISTOR DTC114ES

<RESISTOR>

R080	1-249-441-11	CARBON	100K	5%	1/4W
R081	1-249-425-11	CARBON	4.7K	5%	1/4W
R082	1-249-441-11	CARBON	100K	5%	1/4W
R083	1-249-441-11	CARBON	100K	5%	1/4W
R085	1-249-441-11	CARBON	100K	5%	1/4W
R086	1-249-441-11	CARBON	100K	5%	1/4W
R087	1-247-881-00	CARBON	120K	5%	1/4W
R088	1-249-425-11	CARBON	4.7K	5%	1/4W
R089	1-249-441-11	CARBON	100K	5%	1/4W
R090	1-249-425-11	CARBON	4.7K	5%	1/4W
R091	1-249-409-11	CARBON	220	5%	1/4W
R092	1-249-425-11	CARBON	4.7K	5%	1/4W

<CONNECTOR>

Z3	*1-568-878-51	PIN, CONNECTOR 3P	

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The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION	REMARK
		MISCELLANEOUS	
		**********	
	⚠1-426-398-11	COIL, DEMAGNETIZATION	
	⚠1-451-313-22	DEFLECTION YOKE (Y29FXA)	
	1-452-032-00	MAGNET, DISK; 10MM φ	
	1-452-094-00	MAGNET, ROTATABLE DISK; 15MM φ	
	⚠1-452-509-42	NECK ASSY, PICTURE TUBE (NA-308)	
	⚠1-559-346-12	CORD, POWER (WITH CONNECTOR)	
V901	⚠8-733-821-05	PICTURE TUBE (A68JYK10X)	

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ACCESSORIES AND PACKING MATERIALS
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PART NO.	DESCRIPTION	REMARK
A-1673-001-A	COMMANDER ASSY (RM-689)	
*A-1678-001-A	BOX ASSY, WOOFER	
*A-1678-003-A	BOX ASSY (RIGHT), SPEAKER	
*A-1678-005-A	BOX ASSY (LEFT), SPEAKER	
*3-704-283-01	BAG (STANDARD),PROTECTION	
3-759-001-11	MANUAL, INSTRUCTION	
*4-200-036-01	INDIVIDUAL CARTON	
*4-200-041-01	CUSHION (UPPER) (ASSY)	
*4-200-042-01	CUSHION (LOWER) (ASSY)	
*4-384-027-01	BAG, PROTECTION	